ECONOMIC DEVELOPMENT OPPORTUNITIES IN NORTHERN ALBERTA

OVERVIEW REPORT

A study prepared by Currie, Coopers and Lybrand Management Consultants in association with J.F.T. Scott & Associates

Alberta
NORTHERN ALBERTA
DEVELOPMENT COUNCIL

Acknowledgements

This project was characterized by extensive participation and input from over 250 northern residents, community representatives, industry and government officials. Their willing contribution provided the basis of the entire study.

We are indebted to the members of our Steering Committee:

Mr. Rick Sloan, Project Director, Northern Alberta Development Council, Peace River

Mr. Eugene Dextrase, Farmer, High Level

Mr. Helmut Kreiner, Businessman, Whitecourt

Mr. Dave McArthur, Director, Regional Economic Development Council, Lac La Biche

Mr. Mike Shalapay, Businessman, Athabasca

Mr. Marcel Ducharme, Businessman, Bonnyville

Mr. Neil Wilson, Director, Research and Analysis, Alberta Tourism and Small Business, Edmonton

Mr. Walter Hordowick, Assistant Director, Strategic Planning Branch, Alberta Economic Development, Edmonton

Mr. Greg Varricchio, Regional Business Development Branch, Alberta Tourism and Small Business, Peace River

Mr. David Derworiz, Suncor Inc., Fort McMurray

Mr. Wayne Jacques, Canadian Forest Products Ltd., Grande Prairie

Mr. Jacques St. Arnaud, Businessman, Falher

The support of the members and staff of the Northern Alberta Development Council is greatly appreciated.

We thank Travel Alberta and Energy and Natural Resources for their assistance with photographs and maps.

Project Team:

Mr. D. Schwanbeck
Mr. D. Smith
Mr. J. Scott

Second edition, December, 1985

Table of Contents

Page

Executive Summary 3

Introduction 7

The Approach to the Work 8

Study Scope and Limitations 8
Methodology 8

Overall Goals for Economic Development 11

Overall Economic Development Goals, Resources, Constraints, and Opportunities by Sector 12

The Population Resource and Its Impact on Development in Northern Alberta 12
Agricultural Sector 13
Tourism and Recreation Sector 18
Non-Renewable Resources (Oil and Gas, Coal, Other Minerals) 21
Forestry 29
Fish and Wildlife 34
Retail/Service/Commercial Sector 36
Infrastructure 37
Water Resources 40

Economic Development Issues and Opportunities in Northern Regions 44

Region One: Lower Peace 44
Region Two: Upper Peace 45
Region Three: Remote Area of Central Northern Alberta 46
Region Four: Grande Prairie Area 47
Region Five: Slave Lake, High Prairie, Smoky River/Valleyview Area 48
Region Six: Grande Cache Area 50
Region Seven: Fox Creek, Whitecourt, and Swan Hills Area 51
Region Eight: Fort McMurray Area 52
Region Nine: Lac La Biche and Athabasca Area 54
Region Ten: Cold Lake, Grand Centre and Bonnyville Area 54
Region Eleven: St. Paul and Elk Point Area 55

Conclusions 57

List of Appendices

Appendix I
Approach for Screening Economic Development Opportunities 58

Appendix II
Population Statistics 59

Appendix III
Summary of Heavy Oil and Oil Sands Activity in Alberta with Planned Capital Expenditures Under $20 Million as of January 31, 1985 63

Appendix IV
Summary of Significant Energy Projects in Northern Alberta 64

Appendix V
Hospital Capital Construction Program Northern Region as at July, 1985 65

Appendix VI
Proposed Road Construction and Upgrading Requirements in Northern Alberta 66

Executive Summary

Introduction

The Northern Alberta Development Council's (NADC's) primary function is to provide government with a northern point of view on a wide range of issues, to supplement and complement the perspectives on northern Alberta. The Council acts as an advisory body to the Minister Responsible for Northern Development; and through him, assists in the investigation, planning, promotion and co-ordination of practical measures to foster and advance development in Northern Alberta.

There are some 243,000 residents in northern Alberta and the region served by the NADC constitutes approximately 60 per cent of Alberta's land base.

The Council facilitates input to government decision-making by holding public meetings to receive briefs from northern citizens. At these public meetings northerners can present their views to government and private sector decision-makers on various development issues. The Council also sponsors conferences and workshops, conducts practical research and encourages interdepartmental co-operation.

As part of its mandate the Council commissioned the firm of Currie, Coopers and Lybrand in late 1984 to help clarify current economic development opportunities in northern Alberta. This major project was undertaken for three reasons:

- firstly, to provide up-to-date information to communities, government, business and industry on the key topic of economic development in northern Alberta;
- secondly, to help provide some of the necessary background information for delegates and speakers involved in the major NADC Challenge North Conference in Fort McMurray, in October of 1985, and;
- thirdly, to provide a detailed background report for Council members to assist them in their ongoing function of evaluating briefs and providing advice to government.

Key Objectives

The key objectives of the study were to identify local and regional aspirations, goals and priorities; to identify *realistic* economic development opportunities; and to build understanding among the citizens of northern Alberta as to opportunities which can be pursued.

Approach to the Work

For the purpose of the study, the Northern Alberta Development Council area was divided into eleven regions. The boundaries used for these regions were based on a combination of geography, transportation patterns, and trading areas.

The field research took place from January to June, 1985. The following were the major components of the research project:

- A comprehensive literature review.
- Extensive personal interviews with key actors in each of the eleven regions.
- Government and industry interviews regarding economic activity and future trends.
- A day-long workshop with business and community leaders in each region to review preliminary findings, and to provide additional input.

An active steering committee made up of industry, community and government representatives monitored the various stages of the project. This committee reviewed the draft reports and provided significant direction to the ongoing research.

At the conclusion of the project eleven reports were produced outlining the economic development assets, goals, opportunities and constraints in each of the regions. This report presents a summary of the regional reports and a general overview of the situation across the NADC area.

Principal Findings

The research process generated a number of significant findings. The comprehensive literature review, the extensive community, industry and government interviews and the regional workshops produced an impressive and valuable data base on the economic fabric of northern Alberta. This executive summary does not present all of the findings; the main text of the overview report and the individual reports provide more detailed coverage.

The seven major economic sectors of agriculture, tourism, non-renewable resources, forestry, fish and wildlife, retail and servicing, and water are analyzed using four topic areas: *Goals* for each economic sector; *Resources and Assets* by sector; *Opportunities* for development within the various sectors; and the major *Constraints* inhibiting the development of opportunities within each of the sectors.

The following statements are based on the analysis.

Long Term Stability

Northern residents seek long term economic stability for their region. They are looking for economic diversification; opportunities to encourage young people to stay in northern Alberta; and for the means to play a greater role in, and take advantage of, the development of resources.

Cautious Investment Climate

The effects of the recent recession still exist. Many local businessmen have a cautious approach toward investment in resource development related opportunities. Lenders often exhibit very cautious attitudes to potential development.

Local Economic Development

There is an increased interest in organized economic development programs in most communities. There is a lack of awareness of the best way to promote economic development at the community or regional level. Many communities require more expertise and assistance in order to effectively carry out an economic development program.

Agriculture

The agricultural sector has a major role to play in northern economic development. Because of the serious cost/price squeeze, there is a need for increased agricultural diversification, improvements in farm productivity, and the continued and expanded use of "cost shelter programs" (for example fertilizer, fuel, drought assistance).

Specific agricultural processing opportunities of some grains, red meat, poultry, and honey were identified in some regions.

There is an opportunity for further new land development in some regions.

Part-time employment off the farm will continue to play an important role as long as costs for land development and farm operation remain at current levels.

Continued northern agricultural research is required at a significant funding level to address the long term challenges and opportunities facing the industry.

Forestry

The forest resource in Alberta, traditionally a strong economic force in northern Alberta, offers potential for further expansion as prices and markets improve.

The hardwood (aspen) resource of northern Alberta is almost completely untapped. There are potential opportunities in some regions.

Just over half of the softwood (coniferous) resource in northern Alberta is committed to existing industry. There is potential for some development of the remaining resource and for increased production using smaller timber.

Further development of the forest industry particularly the aspen resource will likely require government assistance tailored to meet the requirements of the specific projects.

Fish and Wildlife

The fish and wildlife resource in northern Alberta has an uncertain role to play in future economic development. There are many conflicting priorities between commercial and recreational based activities; trapping can be maintained or increased but only if other development does not continue to encroach.

Tourism and Recreation

Nearly every community in northern Alberta saw some potential for increasing tourism activity in their regions. Most opportunities are local and small scale and can be achieved with relatively small investments. Major tourism developments will require a partnership between government and business.

Significant opportunities exist for upgrading hospitality training, community attractiveness, and tourism awareness.

Non-Renewable Resources

The oil and gas industry has a highly significant role in northern Alberta and will continue to drive its economy. The main components of the recent growth include:

- substantial conventional oil and gas exploration and development;
- expansion from experimental to commercial scale of a number of heavy oil plants;

- expansion of existing tar sands plants and examination of new oil sands plant investment potential;
- enhanced recovery projects in existing fields.

Retail, Service and Commercial

There are retail/commercial opportunities in virtually every northern community. Investment in these opportunities will likely come from local residents. Businesses must be sensitive to local situations.

In communities near resource development, particularly non-renewable resources, there is substantial interest in improving the rate of local hiring and purchasing. Local hiring and purchasing can be enhanced by co-operation and communication between resource developers and local businesses.

Continued work is required to expand the provincial government local purchasing and tendering policies so that local firms can take advantage of opportunities in a competitive way.

Infrastructure

The North is an expanding, developing area. There continues to be a basic requirement for road construction and upgrading as a key "lever" for development. Several regions also need additional housing, municipal servicing and improved health care.

Water

Northern Alberta's water resources will play an increased role in supporting tourism, industrial and hydro-electric development and commercial fishing. Effective water management policies are required.

Conclusion

A major conclusion of the study is that northern Alberta continues to be of significant economic importance to the province as a whole and to the rest of Canada. Its resource-based role will continue and expand in the foreseeable future. There are countless opportunities to develop many related retail and service oriented businesses that will be required to maintain a healthy economy.

Generally, the northern economy is rebounding from the recent recession. Indeed, some regions were not drastically affected at all. Overall, the recovery is being led by renewed conventional oil and gas and heavy oil activity. Northern residents see many opportunities in the service sector and in developing a stronger tourism industry in the North. The forest industry has potential for expansion. The agricultural industry is going through difficult times but is a vital sector of the northern economy. The traditional fish and wildlife sector, too, faces some problems.

There are continued requirements for infrastructure development in northern Alberta. The resolution of concerns related to water and its use by industry, and environmental protection will also be important areas to consider in the future.

Finally, the people of the North are its most valuable asset. They see the North's potential and wish to make the North a better place for themselves and their children.

Northern Alberta offers many challenges:

- For communities the challenge is to take the initiative and to become better organized.
- For business people the challenge is to continue to identify and take advantage of opportunities.
- For the resource based industries the challenge is to develop and carry out effective local purchasing and local contracting policies, to hire and train local residents wherever possible, and to develop good communication networks with local residents.
- For the provincial government, the challenge is to encourage and promote development of all sectors of the northern economy; and to provide increased assistance regarding economic development planning and organizational expertise at the local level.
- For the provincial and federal governments, the challenge is to continue developing infrastructure, transportation, research, and purchasing and tendering policies.

Introduction

The Northern Alberta Development Council (NADC) was created as an advisory body to government to assist in the "investigation, planning, promotion and implementation of practical measures to foster and advance development in northern Alberta". The NADC serves over 240,000 citizens in approximately 60 per cent of Alberta's northern land area.

The ten-member NADC Council reports directly to the Provincial Legislature through the MLA Chairman and the Minister Responsible for Northern Development. Council activities support and complement the role of northern MLAs.

A major objective of the Northern Alberta Development Council since 1973 has been to increase the level of public participation in the planning and design of delivery systems for government services in northern Alberta.

The primary responsibility of the Council is to present to government a northern point of view. Council facilitates input to government decision-making by way of public meetings held for the receipt of briefs, Council-sponsored conferences and workshops, practical research and interdepartmental co-ordination. A major objective of these public meetings is to provide a setting in which northern citizens can present their views to government and private sector decision-makers on economic development issues which are of significance to them.

Approximately every five years the Council sponsors a major conference to give residents of northern Alberta an opportunity to discuss ideas and concerns with senior provincial government officials and private sector representatives. In preparation for a conference held in Fort McMurray, Alberta in October, 1985 (Challenge North Conference), the NADC contracted the services of Currie, Coopers & Lybrand, Management Consultants, to help identify and clarify economic development opportunities in northern Alberta. The overall purpose of the study was to examine from a regional perspective the economic circumstances in northern Alberta.

As a result of this research project, a total of 12 reports were produced. Eleven of the reports dealt with the economic development goals, resources, constraints and opportunities in each of eleven different regions of northern Alberta that were selected for study (Figure 1). This report, the 12th, summarizes the overall approach to the work, documents the global issues and economic development opportunities which are likely to impact all of northern Alberta, examines economic development opportunities by sector and presents highlights of the economic development issues for each of the eleven subregions.

The Approach to the Work

The size, economic diversity, distances, and cultural differences provided significant challenges in the development of research tools to identify and evaluate economic development issues and opportunities.

Study Scope and Limitations

A number of factors limited the scope of the study. These are discussed below.

1. The work program was designed to provide input so that government priorities could be determined for the various regions of the North for the next five to ten years. The focus of the work, therefore, was to obtain the greatest possible public input at a level appropriate for strategic decision-making.

2. The study approach depended on extensive community input in the form of interviews, seminars and workshops. In this way, the results reflect the priorities of those northerners who participated.

3. The terms of reference were confined to a fairly short time frame (six months), covered a large geographical area and dealt with many broad issues. Although considerable effort was made to ensure comprehensive public input, the results of the work are not presented as being complete.

4. The delineation of study regions was arbitrary, roughly based on trading areas, and designed only to assist with data collection and reporting. Figure 1 illustrates study regions chosen.

5. The screening of economic development opportunities at the regional level was designed to help focus local thinking. Opportunities were screened based on their "attractiveness to the community" and the community's "ability to take advantage of them". The screening process did not rank one opportunity versus another. Rather, it attempted to identify those which were attractive and might be feasible so that priority attention could be given to the most promising projects.

   In-depth feasibility studies were not carried out. These would be required before further commitment of resources to any of these opportunities was made.

6. The field work component of the study was conducted from January through May, 1985, and, as such, many of the economic development opportunities reflect the current economic situation for that time.

Methodology

The operational objectives for the study were:

- to describe the resource and economic bases in each of eleven economic sub-regions of northern Alberta;
- to identify local goals and priorities for development in each of the eleven sub-regions;
- to identify potential opportunities as well as constraints to development and expansion in northern Alberta.

The key challenges were to identify local and sub-regional aspirations, goals and priorities, to identify realistic opportunities that could be put in place and to build understanding among the citizens of northern Alberta as to opportunities which should be pursued.

The methodology used in the study is outlined in the sections 1-8 which follow. Figure 2 presents a flow chart of the study approach.

1. **A Review of NADC Briefs and Other Relevant Literature Was Conducted**

   In the past ten years some 1,300 public briefs have been submitted to the Northern Alberta Development Council. With the assistance of NADC staff, approximately 150 of these briefs were reviewed as background and support material. Approximately 125 other reports were reviewed. This material was used for conducting a series of local level interviews and seminars and in preparing background documents for eleven regional workshops.

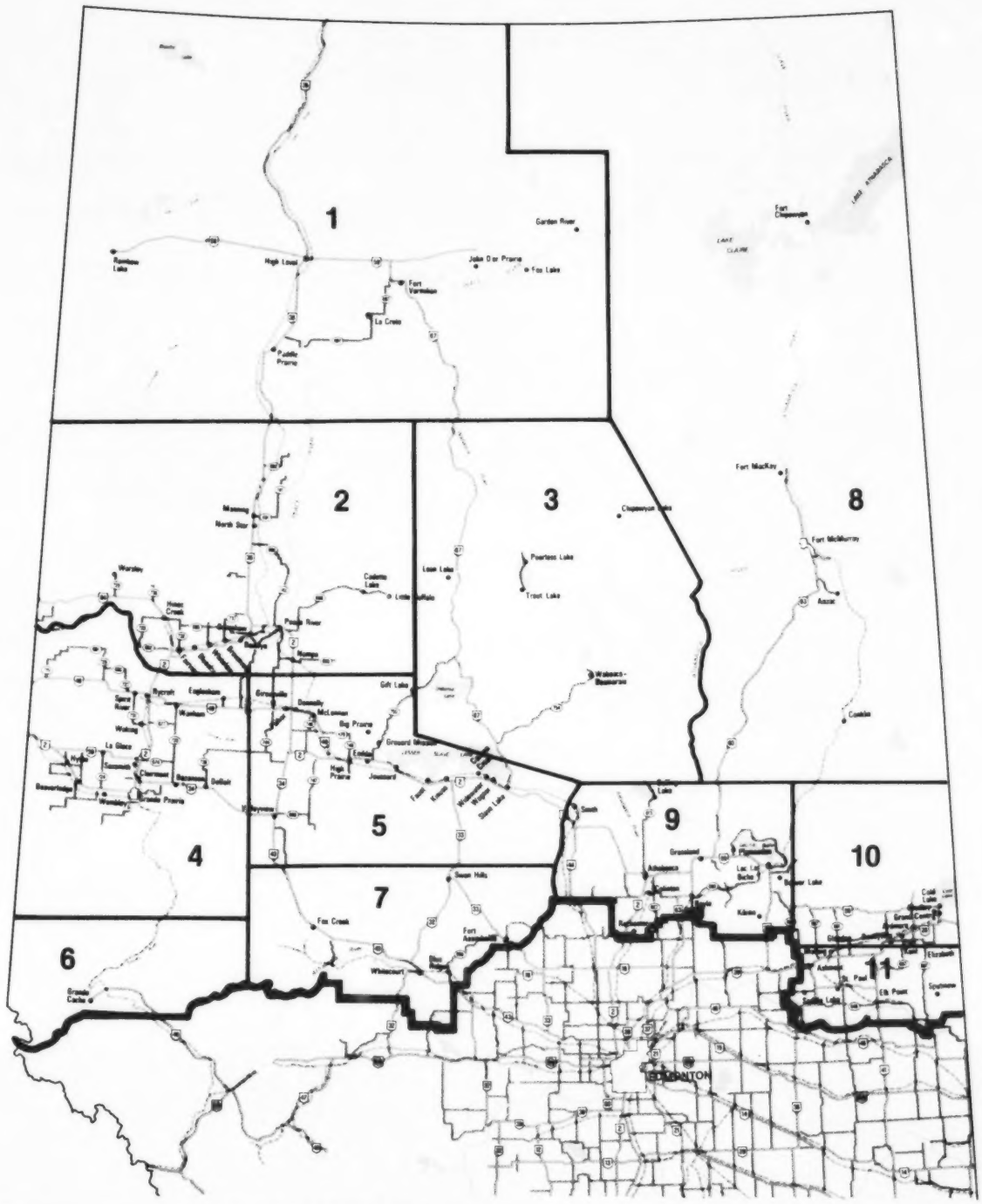
2. **Economic Sector Leaders Were Interviewed**

   In order to identify planned and potential resource development likely to occur in the next ten years, interviews were conducted with industry and government sector leaders to discuss northern Alberta development plans. Contacts were made with resource sector associations, several government departments, business and regional development representatives, and a selected number of key companies with existing and probable future operations in northern Alberta.

3. **Local/Community Level Input Was Obtained**

   In order to fully cover the diversity existing in northern Alberta, each of the eleven subregions was further sub-divided into small, community-based areas. Local level interviews and tours were conducted in 27 different communities. A minimum of six to ten interviews with various community leaders were conducted in each location, bringing the total number of community interviews to some 250. The interview process in each community was often concluded with a community-level seminar designed to obtain further local input.

Figure 1 Study Areas Economic Development Opportunities in Northern Alberta



Communities with Population Over 75 (1981 Canada Census)

PRIMARY HIGHWAY SECONDARY ROAD RAILWAY

Produced by the Alberta Bureau of Surveying and Mapping © 1983

In order to get as much local community input as possible, community co-ordinators, news releases and newspaper advertisements were used.

4. **Criteria for Screening Economic Development Opportunities Were Developed**

   To assist in the opportunity identification and evaluation process, economic screening criteria were developed and reviewed with the study Steering Committee. The criteria were designed to help focus regional priorities for economic development; the criteria were not designed to determine specific investment opportunities. A detailed description of the screening process is presented in Appendix I.

5. **Community Level Input Was Collated by Region and a Preliminary Evaluation of Economic Opportunities Was Completed**

   After the community level interviews and seminars, the community input was collated for each of the eleven regions and a preliminary evaluation of the economic opportunities and constraints was prepared.

6. **Preliminary Regional Reports Were Prepared**

   The information collected from the literature review, interviews with key sector leaders, and input derived from the community-level seminars was then summarized into eleven sub-region reports. Each of these covered the following topics:

   - economic development goals, needs and priorities for the region
   - resources and assets available to support economic development within the region
   - constraints to economic development
   - economic development opportunities
   - a preliminary screening and evaluation of economic development opportunities.

   The reports were prepared as background documentation for the workshops that followed.

7. **Workshops Were Held to Define and Priorize Regional Economic Opportunities**

   By the time the eleven workshops were held, there had been extensive local and community input. The workshops were designed to build upon the input already received, and, specifically:

   - to provide local residents and businessmen with an understanding of the resources, constraints and development opportunities of a region as a whole and of its various communities;
   - to critique the region report and provide additional input concerning the most likely development options and realistic goals for the region;
   - to identify and discuss the evaluation of the economic development opportunities; and
   - to provide a forum for open discussion of regional issues and of development goals, opportunities and constraints so as to focus local thinking.

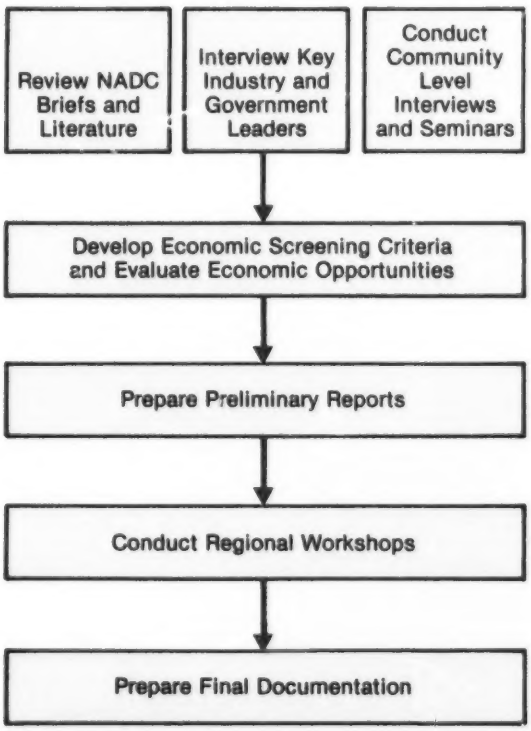
   Local co-ordinators, newspaper articles and advertising were used to attract workshop participants. Participation at the workshops ranged from ten to 30 people.

8. **Study Documentation Was Prepared**

   The last step involved the preparation of final reports summarizing the economic opportunities in the various regions together with this report which outlines global issues and opportunities affecting all of northern Alberta.

The findings of the study are detailed in the following sections. Section III looks at the overall goals for economic development. Section IV reviews, by sector, the global economic development goals, resources, opportunities and constraints impacting all of northern Alberta. Section V provides highlights of the key factors impacting economic development in each of the eleven sub-regions of northern Alberta. Conclusions are presented in Section VI.

Figure 2
Overview of Approach to Work


Review NADC Briefs and Literature
Interview Key Industry and Government Leaders
Conduct Community Level Interviews and Seminars
Develop Economic Screening Criteria and Evaluate Economic Opportunities
Prepare Preliminary Reports
Conduct Regional Workshops
Prepare Final Documentation

Overall Goals for Economic Development

A number of common goals and themes emerged during the study process that cut across all economic sectors and generally reflect the desires of the populace. These overall goals for economic development as expressed by northerners were to:

- Achieve moderate, sustained economic growth. The residents of northern Alberta would like to see growth but growth which is accompanied with a greater degree of long term stability.
- Diversify the northern economy, seek stabilizing business to reduce the impact of "boom and bust" cycles which result from fluctuations in resource-oriented industries.
- Ensure that young people have the opportunities and options to remain in the North.
- Maximize the potential of communities and residents to take advantage of the development of regional resources. Find ways to enable the native population to participate in the economic life of the North more fully.
- Capitalize on the development of natural resources as a stimulus to growth and development.
- Sustain a climate for private sector profits and encourage local investment.
- Balance opportunities for growth throughout the entire northern region.
- Encourage the development of natural resources as markets, capital, labor and technology permit considering the need for conservation and environmental protection.
- Promote the concept of "good corporate citizenship" particularly as it applies to local purchasing and to the training and employment of local people.

The above goals are not in any particular order of priority.

Overall Economic Development Goals, Resources, Constraints and Opportunities by Sector

This section of the report looks at the goals, resources, opportunities and constraints that exist in each of seven different economic sectors including agriculture, tourism and recreation, non-renewable energy resources and minerals, forestry, fish and wildlife, retail/service/commercial, and infrastructure.

To understand northern economic development issues it is important to have an appreciation of the population base of northern Alberta. The population resource and its impact on development are discussed below.

The Population Resource and Its Impact on Development in Northern Alberta

An examination of population statistics for the various census divisions which fall totally or partially within NADC boundaries shows that 9.5 per cent of the provincial population lives in the NADC area. By comparison northern Alberta has achieved a greater degree of settlement than the northern parts of most other provinces.

1. **Past Growth**

   The overall population of the NADC area grew from 208,770 to 243,292 between June 1, 1979 and June 1, 1984. The annual growth rate achieved during the period was 3.0 per cent, the same as the province as a whole.

   In the 1970s many of the communities of the North experienced rapid population growth and many pressures were created for community infrastructure and servicing. As a result significant improvements in infrastructure have been made and are continuing to be made throughout the North.

   The recent recession slowed growth and stabilized the population base, particularly in the smaller communities, and has reduced labor turnover. The population of cities, towns, villages, counties and districts and the growth rate from 1979 to 1984 are shown in Appendix II. The largest growth (in absolute numbers) in northern municipalities occurred in Fort McMurray which grew by some 9,500 people between 1979 and 1984. This population increase represented over 30 per cent of the total growth in the NADC region for that period. Grande Prairie grew by some 3,984 people. Together the two cities accounted for 42 per cent of the total growth achieved.

   Other areas showing growth include Slave Lake (1,017), Bonnyville (1,087), Cold Lake (930), the County of Grande Prairie (2,931), and ID 22 (1,118). Together these account for a further 22 per cent of the total growth which took place during the period.

   The North has achieved population growth rates in the past above the provincial average. Much of the growth can be attributed to oil and gas resource development. Significant infrastructure improvements have been implemented. The area is poised for renewed growth as the climate for oil and gas investment improves.

2. **Indian and Native Settlements**

   The NADC area also includes numerous Indian reserves and eight Metis settlements. The reserves and settlements typically have very small population bases, unemployment rates of 50 to 80 per cent and provide only very basic business facilities and infrastructures for their residents.

   Some Native people reside in communities that are in remote locations. These communities are "isolated" by distance and culture from the rest of the Province. Employment and living conditions are similar to those found on settlements and reserves.

3. **Population Projections**

   Population projections from the Alberta Bureau of Statistics show that from 1983 to 1998 the highest annual growth rate in the North is expected in census division 12 (Fort McMurray). The period from 1983 through 1986 will be characterized by low growth (i.e., natural increase only); the 1986 to 1998 period will have higher growth as a result of a return to positive migration. Projections indicate an annual growth rate of 1.6 per cent for the NADC area. This is similar to that projected for the province as a whole. However, the NADC area could achieve much higher rates of growth if, for example, major tar sands development was to proceed.

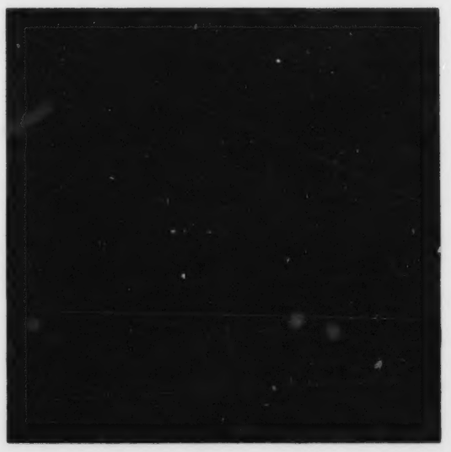
4. **Constraints Imposed by Population**

   The development of the NADC area is hampered by several population factors.

   - The populations of most of the towns and communities in the North are too small to support large retail operations such as Canadian Tire and Canada Safeway.
   - Local markets are often too small to support many service and manufacturing enterprises.
   - The long distances between communities serve as barriers to economic development.

Further information on population statistics and projects can be found in Appendix II.

Agricultural Sector



The aspirations and desires of northern residents in the area of agriculture are detailed below. These were identified through interviews and reviews of recent documentation.

1. **Economic Development Goals and Needs**

   The major economic development goals in agriculture fall into five areas: 1) improved agricultural intensification and farm productivity, 2) improvement of farm viability, through a variety of measures, 3) development of small-scale processing opportunities, 4) further development of new agricultural lands, and 5) enhancement of the red meat industry.

   The goals for agricultural intensification and improvements in farm productivity include:

   - Improved farm productivity through new farming methods and the production of promising new varieties of grain and better matching of crops to land quality and available growing season.
   - Improved farm productivity through more extensive soil testing, improved drainage and selected irrigation projects. Other productivity opportunities include application of lime where appropriate, crop, soil and production methods, research and specialty crops (grass seeds).
   - Improved farm management through training programs and incentives for agricultural intensification (e.g., irrigation, cost-shared research).

   The agricultural community currently faces a number of difficulties. Some of the goals identified relate to the maintenance of the industry. These include:

   - Design of mechanisms to preserve the family farm;
   - Improved net farm income through continued use of cost shelter programs for fuel, fertilizer and interest rates;
   - Promotion of off-farm employment opportunities which complement northern farming;
   - Reduced prices for Crown land and/or low interest loans to support the cost of clearing privately owned land. Currently, the costs of bringing undeveloped land into full production require payback periods of 20 years to be viable.

   A strong goal expressed by northerners was to achieve a greater degree of local processing of agricultural production for specific products such as:

   - honey processing
   - specialty small-scale meat processing
   - grain processing

   The issue of land development was important in some regions, particularly the Lower Peace. The NADC recently put forward recommendations to government which outline the goals for the development of new agricultural land. These include:

Figure 12 Main Pipelines and Gas Plants, 1982

Scale 1:4,000,000

Source: Alberta Bureau of Surveying and Mapping

Figure 13 Coal and Existing Mines, 1982

Scale 1:4,000,000

Source: Alberta Bureau of Surveying and Mapping

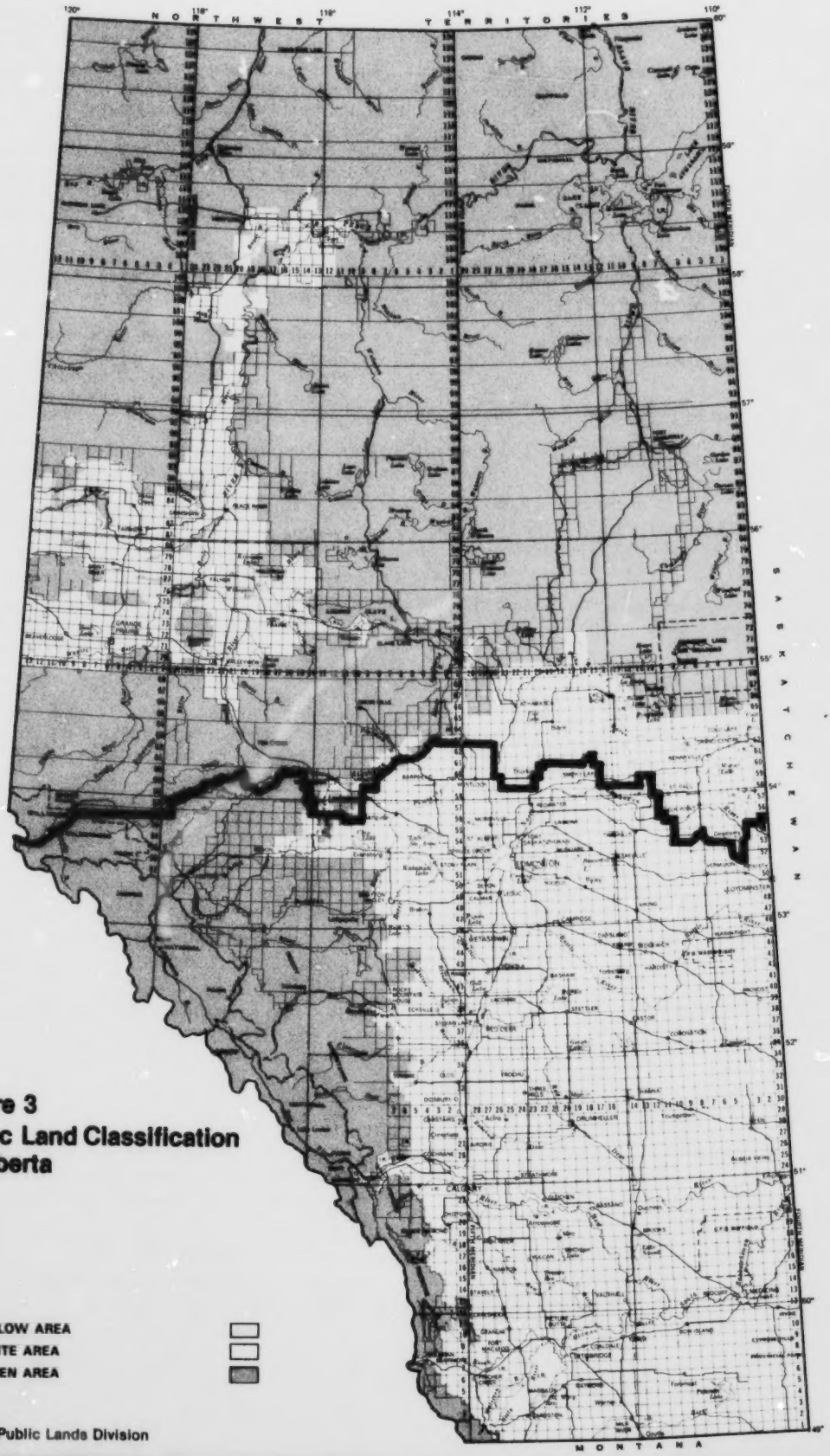


Figure 3
Public Land Classification in Alberta

Source: Public Lands Division

- That a detailed inventory of the remaining undeveloped land in the green and yellow areas of northern Alberta be prepared to determine their capability to support expanded agricultural production.[1] Figure 3 outlines the extent of the white, green and yellow areas for the purpose of administering public lands within the Province. The White Area is essentially the settled area of the Province, and comprises about one-third of the total area of Alberta. The Yellow Area is located in northwestern Alberta. Public lands are managed in a fashion similar to the White Area but in addition, homestead sale dispositions may be obtained on suitable land. The Green Area consists basically of non-settled forest lands. The public lands in the Green Area are managed primarily for forest production, watershed protection, recreation and other uses. Agricultural uses, other than for grazing reserves and permanent settlement on legally sub-divided lands, is restricted.
- That about 250,000 acres of public land be made available annually in the northwest region of Alberta over the next five years;[2]
- That, subject to soils analyses, planning continue for "block land development" in selected areas.
- That, as far as possible, disposal of public lands for grains, forage, and grazing reflect specific farmer needs.[3]
- That expansion of existing farms be encouraged where good land is available.

An additional goal is to maintain as much as possible of the existing red meat production through use of marginal grain land and land suitable for forage for cattle and sheep.

Northern Alberta appears to have many of the necessary resources to support the fulfillment of these goals.

2. Agricultural Resources and Assets

The primary farming areas within the NADC boundaries are located in the Peace Bloc in the northwest quadrant of the Province. Some 75 per cent of all northern Alberta farms are located in this region. The region is well suited to the production of grain, and indeed it is capable of producing the highest quality grain in Canada. Figure 4 shows the present agricultural land use in northern Alberta.

Figure 5 shows the number of farms, average area, total area and improved area. It shows that there are approximately 12,000 farms occupying 8.4 million acres, of which some 67 per cent are improved.

The average farm in northern Alberta at 698 acres is about 15 per cent smaller than the provincial average area per farm.

[1] Development of New Agricultural Land, 1983.

[2] Ibid. 1.

[3] Ibid. 1.

Part-time farmers represent 40 per cent of all farmers in northern Alberta, and, further, off-farm employment provides income which is used to reinvest in farm operations. Currently, an average of five months per year is spent on off-farm work. This appears to be a key success factor for agriculture in northern Alberta.

In most farm operations significant equity is required before farm operations will become profitable. This factor inhibits farm expansion and the establishment of new farms and is part of the reason why so many farmers must rely on off-farm employment for a large part of their income. Established farm operators who have been in business for many years have had a greater opportunity to build up their equity, and for this reason are generally able to rely on farm income for a much larger part of their total remuneration.

The production of cereal grains generally has the best economics. Rapeseed, while also capable of good returns, is generally more variable in terms of the output and productivity which can be expected. There is a traditional emphasis on grain farming, particularly in northwestern Alberta. Red meat production is not as dominant an area of concentration although it is important in some regions. Although red meat production is currently less economic than grain there is an opportunity to use marginal grain and forage lands for cow-calf operations and sheep. The economics of hog production is currently less attractive due to the cyclical nature of the industry. Good returns can also be obtained in producing honey and specialty crops in those areas particularly suited to them.

There is a strong demand for new land expansion particularly in the La Crete, Fort Vermilion and High Level areas. A recent survey (November, 1983) by NADC showed that some 75 per cent of farmers in the region desire more land to expand their operations. Recent studies suggest that there are large quantities of agriculturally suitable Crown land available in the green area, providing environmental and multiple use issues can be dealt with. The expansion of the agricultural land base through the exploitation of Crown land has significant potential.

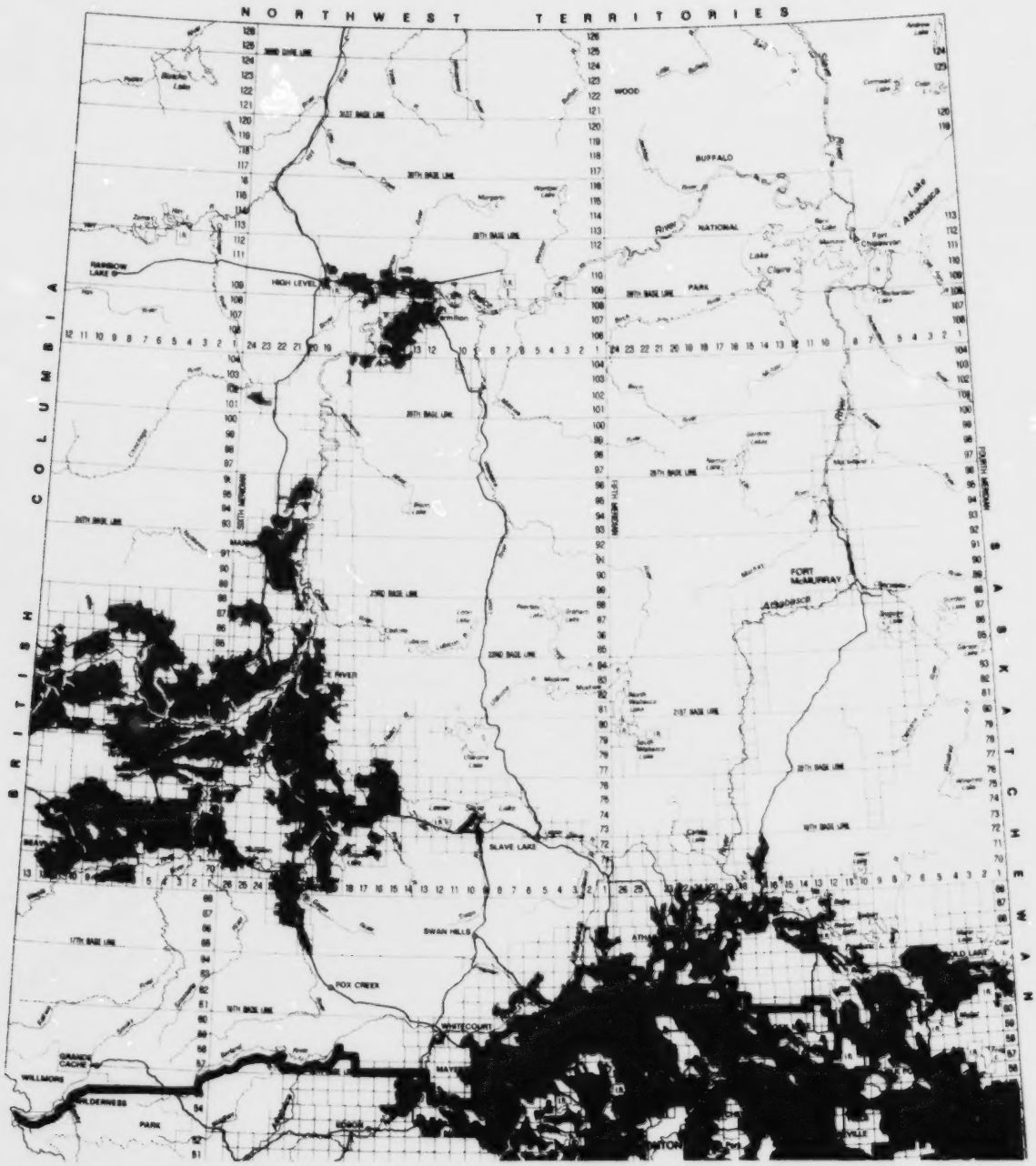
The expansion of existing farms through clearing of nearby land represents another opportunity. It may have a lesser potential due to the costs of clearing and limited supply of high quality land in the right locations.

Another recent development which should enhance the agricultural industry in northern Alberta is the construction of the new grain terminal at Prince Rupert, B.C.

3. Economic Development Opportunities

Major economic development opportunities in the agricultural sector are discussed below.

Figure 4 Present Agricultural Use



Cultivated Lands

Source: Energy and Natural Resources
Scale 1:4,000,000

- Improvements in farm productivity are possible through:
  - improved management
  - more appropriate application of fertilizer
  - new varieties of grain
  - new commodities and specialty crops
  - more extensive soil testing
  - improved drainage
  - selective irrigation
  - application of lime
- There is demand for the further development of new agricultural land. An estimated 250,000 acres of Crown land could be absorbed annually. A recent survey (November, 1983) by the NADC showed that some 75 per cent of farmers in parts of northwestern Alberta desire more land to expand their farming operations. The farm expansion is anticipated primarily in grain and/or oilseed production. The major opportunity for expansion is in the development of new Crown land.
- There is potential for further development of local markets for such products as processed meats (sausage, beef jerky, mock chicken), poultry and egg grading. There also appear to be opportunities for one or two small abattoirs.
- An opportunity exists for growing and processing increasing quantities of Saskatoon berries. This opportunity is being pursued at Manning and Hythe.
- There may be an opportunity for the further processing of honey, capitalizing on the strong honey production around Falher. The viability of this opportunity requires detailed investigation.
- A number of communities are studying the feasibility of establishing horticulture operations based on using waste heat from gas processing and other resource processing operations. Detailed feasibility studies are required to prove viability.
- The development of such agricultural service businesses as specialty fertilizer applicators, implement dealerships, and auctions appears feasible in selected areas.
- Possible international markets for products such as soy meal could be replaced with Alberta canola.

Many of the above opportunities require further analysis and it is clear that an effective marketing function will be a key requirement to capitalize on many of them.

Figure 5 Number of Farms, Average Area, Total Area, and Total Improved Area (1981 Census)

Municipality	Number of Farms	Average Area Per Farm (acres)	Total Farm Area (acres)	Total Improved (acres)	Total Improved %
ID 15 - Whitecourt	283	546	154,527	86,371	56
ID 16 - Valleyview	856	672	575,593	339,925	59
ID 17 - Slave Lake - High Prairie	1,032	716	738,616	458,838	62
ID 18 - Fort McMurray - Lac La Biche	756	676	511,379	236,465	46
ID 19 - Wanham - Eaglesham	806	888	715,486	555,782	78
ID 20 - Bay Tree - Blueberry Mountain	956	752	719,465	540,866	75
ID 21 - Hines Creek	618	932	575,723	349,236	61
ID 22 - Manning	812	736	597,724	404,572	68
ID 23 - High Level - Fort Vermilion	578	703	406,550	264,618	69
MD 87 - Bonnyville	682	586	399,647	275,034	69
MD 130 - Smoky River	669	816	546,164	457,034	84
MD 133 - Peace	Not available separately, included with ID 20				
MD 135 - Spirit River	275	701	192,912	145,961	76
MD 136 - Fairview	Not available separately, included with ID 19				
CO 1 - Grande Prairie	1,673	635	1,038,911	750,310	72
CO 12 - Athabasca	1,054	574	605,458	385,699	74
CO 19 - St. Paul (includes Saddle Lake Reserve)	1,009	1,288	636,805	409,714	64
Northern Alberta Total	**12,059**	**698**	**8,414,960**	**5,680,425**	**67**
Provincial Total	**58,056**	**813**	**47,218,170**	**30,951,142**	**66**

Source: 1981 Census of Agriculture

4. **Constraints to Development**

A number of constraints hamper the further development of the agricultural sector.

- The significant amount of equity which is required to establish or expand farm operations limits the number of people able to expand.
- The cost of posted public lands may be too high in light of the time required to bring undeveloped land into full production.[1]
- A lack of road and settlement infrastructure is hindering new land development.
- The agricultural sector currently faces a cost/price squeeze. Prices for commodities are depressed while costs have continued to increase.
- The process and policies of posting and disposing of Crown land are considered to be lengthy and often inconsistently applied from area to area.[2]
- Drainage and erosion have been major problems to agricultural development in the northwest.
- The Canadian meat packing industry has lost much of its competitiveness and considerable beef is exported to the U.S. instead of being processed in Canada.
- The distance to Edmonton feed lots/ processors leaves many northern producers at the mercy of prevailing prices for livestock.
- A constraint to the upgrading and/or construction of processing facilities in the North is the local inability to use (lack of market for) by-products (e.g., the NARP crushing plant at Sexsmith must export both oil and husks).
- The continuing trend to farm consolidation is forcing equipment dealers to centralize. For this reason, essential farm services are lacking in many centres. This endangers the small farm.
- Some farm communities are without adequate rail and elevator services (e.g., Valleyview, Worsley and La Crete).

[1] Development of New Agricultural Land.

[2] Ibid. 1.

Tourism and Recreation Sector

1. **Economic Development Goals and Needs**

Nearly every community and region of northern Alberta is interested in capitalizing on perceived tourism potential. Tourism destination area studies (involving inventory and planning components) have been prepared as planning and development guides for at least three tourist zones of the North — Zone 9 (Land of the Mighty Peace), Zone 7 (Evergreen Tourist Zone) and Zone 6 (Lakeland Tourist Association).

The general goals for the development of the tourism/recreation sector include the following:

- Development of plans and strategies for tourism. These strategies must build on available resources, a realistic appreciation of potential markets, and identified viable products/programs and destination areas. Most tourism/recreation opportunities in northern Alberta are not likely to be realized through the establishment of major destination areas. Rather, the development of facilities and programs with more local appeal will be most feasible.
- There is a need for increased awareness in the North of the potential importance of tourism in northern Alberta. The recently released *Position and Policy Statement on Tourism* underlines the fact that the North is considered a major tourism asset and presents significant opportunities.
- Specific marketing programs are required to properly target and position northern Alberta tourism products once a strategy is in place.
- Ways to further support the development of the tourism industry in northern Alberta need to be found. Support is required in the area of tourism and recreation planning, and hospitality training. Programs currently in

place at Travel Alberta could be accessed in this regard.

- Provincial tourism promotion needs to be focused on specific northern activity areas and programs.

2. **Tourism and Recreation Resources and Assets**

Northern Alberta has tremendous potential for tourism. It has a number of high-quality recreation areas. Figure 6 shows the number of various camping facilities as estimated by Alberta Energy and Natural Resources. These camping facilities are displayed graphically in Figure 7.

In addition to existing facilities, there are significant untapped areas offering recreational potential, such as Willmore Wilderness Park, the Lakeland region, and the Kakwa area.

In anticipation of future demand for facilities, the Alberta Forest Service has proposed strategic plans and priorities for facility and recreational development within its jurisdiction (i.e., campgrounds, picnic areas, water access points, and trail system development). These plans call for the development of some 1,300 new camping sites in 57 different areas of the province. Many of these are in northern Alberta.

The tourism assets of northern Alberta are mainly under-exploited. In addition to the resources mentioned previously, the major river systems in northern Alberta have an under-developed, rich historical heritage in terms of their early use as the main transportation routes for traping and other endeavors. They represent a resource for recreational uses such as canoeing, jet boating, and commercial river cruises. In addition, their rich historical contribution to the development of the North offers potential for tourism development.

The forests of northern Alberta are rich in wildlife and can be further developed for big game hunting for elk, deer, moose and bear. The North has significant potential for fly-in fishing. Existing fishing lodges are under-utilized and several potential fishing areas have not been developed.

Many communities have local attractions that remain to be developed. Historical and cultural attractions such as Dunvegan, Fort George and Buckingham House are examples of the potential which exists.

Special resource-based facilities such as the oil sands plants offer the potential for significant industrial related tourism developments.

A real strength is the local spirit and community involvement of northern residents. This is expressed in many special community events such as balloon races, ploughing matches and rodeos which could be marketed as tourist attractions.

In addition to the resources previously noted, there are other positive factors supporting development of tourism. These include:

- The recent federal/provincial agreement between Ottawa and Alberta to support tourism development
- The Alberta White Paper supporting a tourism initiative
- A favorable exchange rate for encouraging U.S. travel to Canada
- An under-developed historical and cultural background with potential to attract tourists
- A potentially untapped Alberta market. Established camping patterns show that about 80 per cent of camping facility use within Alberta is by Albertans. Albertans generate 49 per cent of the tourism revenue within the Province. These factors suggest that marketing efforts for the development of northern tourism could be successfully focused on the Alberta market.

3. **Economic Development Opportunities**

Numerous tourism opportunities were identified during the study. Examples include:

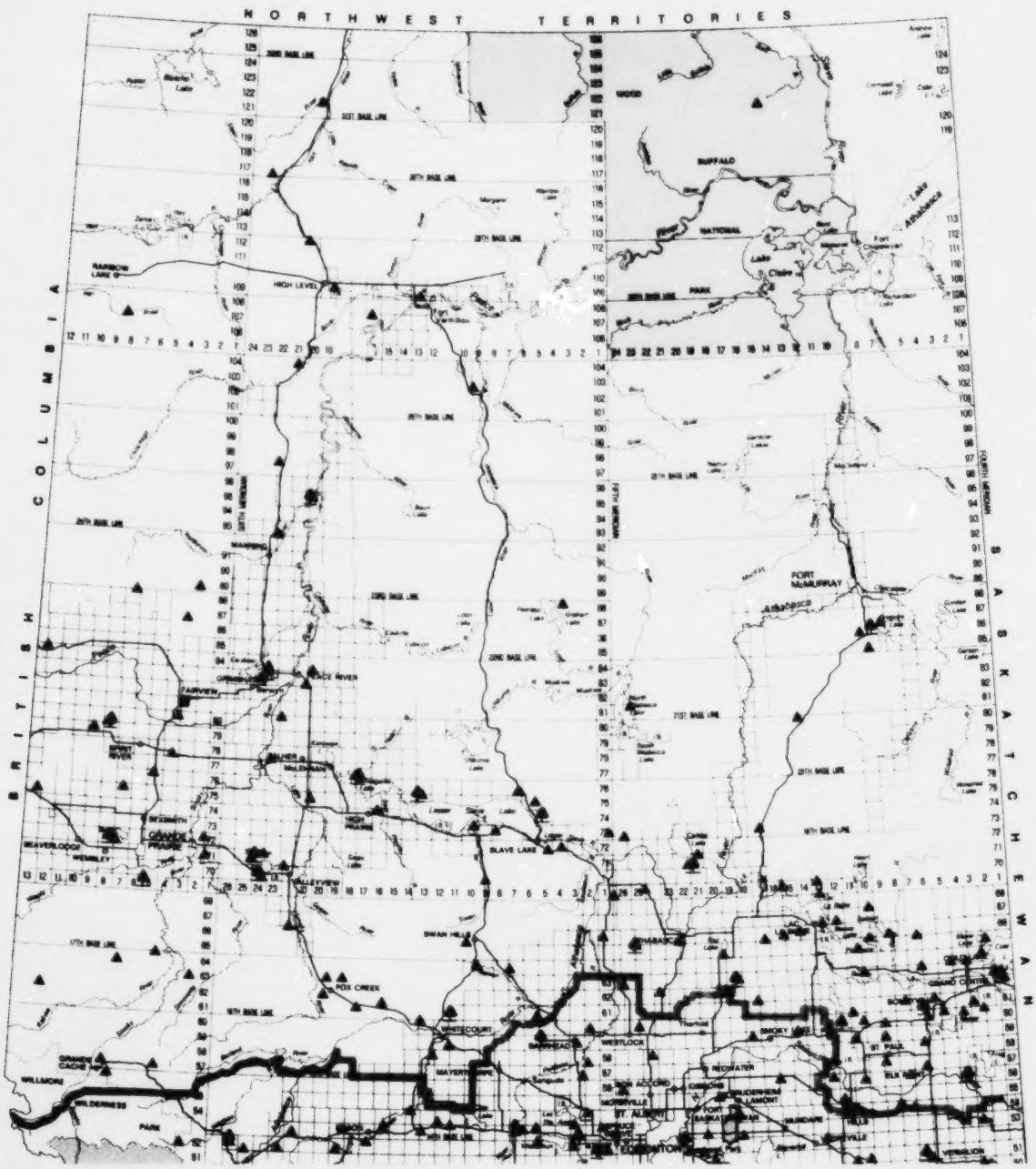
- outdoor recreation (camping, hiking)
- water activities in many areas (houseboat rentals, sailboats)
- big game hunting (guiding and outfitting)
- riverboat cruises on the Peace, the Athabasca and the Smoky Rivers
- historical site development such as at Dunvegan, Fort George and Buckingham House
- wilderness experiences such as at Fort Chipewyan (outfitting, dogsledding, native culture)

Figure 6 Camping Facilities

	Athabasca Region	Northeast Region	Peace River Region	Total
Provincial Parks	1	14	9	24
Roadside Areas*	1	81	25	107
Alberta Forest Service	11	17	32	60
National Parks	1	1	0	2
Private and Municipal	0	29	6	35
Total	14	142	72	228

* Established originally by Alberta Transportation, roadside areas are transferred to Alberta Recreation and Parks when use levels indicate that the areas are used as destination points rather than stop-over sites.

Figure 7 National Parks, Provincial Parks and Campsites, 1982



National Parks

Campsites

Provincial Parks

Source: Energy and Natural Resources
Scale 1:4,000,000

- sport fishing
- winter activities like cross-country skiing, ice fishing, and snowmobiling
- industrial tour attractions
- auto touring opportunities
- sightseeing and bird watching
- packaging of attractions/events, linking opportunities
- more locations for fly-in lodges
- expansion of adventure product market
- the Lakeland region as a major recreation/ resort area.

Many of the above opportunities do not require major developments or expenditures. They could be developed as a result of community interest groups working together to improve the community so that it will be more attractive to both visitors and residents. Many combination activities are possible (e.g., skiing and snowmobiling using fishing lodges as a base). Alberta residents represent the largest single market for northern Alberta tourism. There appear to be possibilities for the family market.

The development of selected "tourism destination areas" in northern Alberta will help focus tourism strategy, facilities and marketing efforts. The Lakeland area of northern Alberta, for example, is ideally suited to development as a significant destination area. It offers a water based alternative to the mountain resort areas and it is close to the large Edmonton market. The integrated resource planning process is nearly completed, the Lakeland destination area study is underway, and there is considerable public support for its development.

Potential to increase "in-region" tourism and recreation appealing to the residents within a particular locality also exists. This opportunity will require the enhancement and development of local facilities and programs (e.g., stocking of lakes, local camping, local ski trails/clubs, modest ski lifts, off-highway vehicle trails/ clubs).

A significant opportunity appears to exist for the extended development and packaging of tours into northern Alberta, particularly for sport fishing and hunting.

The possibility of allowing for greater commercial development within provincial parks could provide opportunities for private investors in northern Alberta.

4. **Constraints to Development**

The constraints to tourism development include the following points:

- Most tourism/recreation opportunities in northern Alberta are of limited scale.
- In most areas of northern Alberta it is expected that the Provincial Government will play a role in tourism development, particularly from a funding perspective.
- Accommodation facilities in northern Alberta have largely been developed to accommodate oil and gas exploration and not tourism.
- Very few tour packages are available for northern Alberta. Tour operators have apparently been reluctant because few facilities are available to handle the number of people, and ground transportation and airline connections are limited. Tour operators appear to know little about northern Alberta.
- In the past, tourism products and promotions have suffered from poor market targeting and have focused on facilities rather than on programs.
- The summer tourism season is short in northern Alberta. The tourism operator must therefore offer products where a payback is possible based on the limited season.
- Distance is a significant problem for tourism development in that access to large population bases is limited.
- The visual appeal of many small towns and the awareness of requirements for tourism development can be significantly improved.
- An enhanced hospitality industry is required with particular emphasis on improved service, cleanliness, and friendliness. This is particularly important for service operations such as hotels, motels, restaurants, and gas stations.
- The underutilized capacity of such centres as Jasper represent significant competition for northern Alberta.

Non-Renewable Resources (Oil and Gas, Coal, Other Minerals)

The non-renewable resource sector will continue to influence growth and development in northern Alberta. The goals for the development of these resources are discussed below.

1. **Economic Development Goals and Needs**

   Several specific goals were identified by northern Alberta residents for the development of non-renewable resources. The goals identified were to:

   - Continue development of heavy oil and tar sands resources to exploit this immense resource.
   - Encourage exploration and development of new conventional oil and gas fields.
   - Enhance the oil and gas service base through encouragement of local hiring and purchasing by the major resource developers.
   - Obtain more local processing of resources (e.g., heavy oil upgrading).
   - Enhance communications between resource developers and local residents to improve understanding of development cycles and potential opportunities.
   - Develop new markets for coal and coal products (e.g., electricity generation).
   - Encourage investigation into coal and petrochemical transportation issues and methods.
   - Provide tax, energy policy and royalty structures necessary to encourage long-term, stable non-renewable resource development.

2. **Non-Renewable Resources and Assets**

   Heavy oil, oil sands, increased oil recovery and new conventional oil exploration represent the most imminent and large-scale development potentials for northern Alberta. A recent report by the Alberta Chamber of Resources[1] puts the oil and gas potential in perspective:

   The oil sands and heavy oil deposits in Alberta and Saskatchewan, are a massive reserve exceeding the estimated total reserves of oil in the Middle East and dominating Canada's other sources of oil. Figure 8 attempts to compare the relative sizes of Canada's oil sources, in terms of what is already known to exist within the constraints of today's technology. The Alberta Energy Resources Conservation Board has estimated that there is potential to recover in excess of 20 billion barrels of upgraded synthetic crude oil from mineable ore bodies.[2] This translates to the potential to build several oil sands of the scale of Suncor or Syncrude. This (20 billion barrel) reserve of synthetic crude is estimated to be three times the remaining recoverable and potential new reserves of light oil from established areas (8.5 billion barrels) and approximately equal to the potential from frontier areas (28 billion barrels).[3] The mineable oil sands are shown in Figure 9.

Figure 10 shows total oil sands deposits (including the "mineable" reserves).[4]

Figure 8 Canada's Identified Oil Resources

(After Geological Survey of Canada)

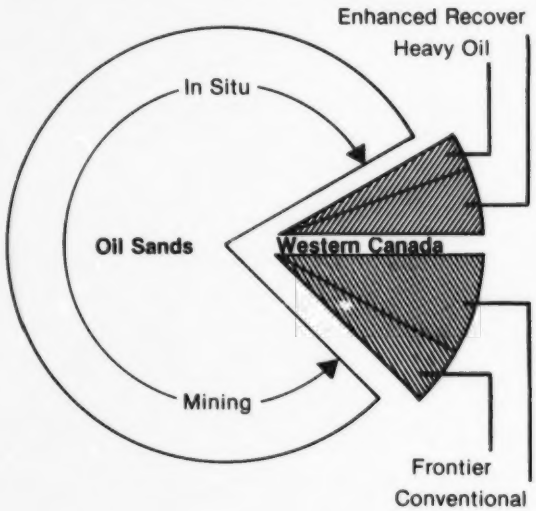
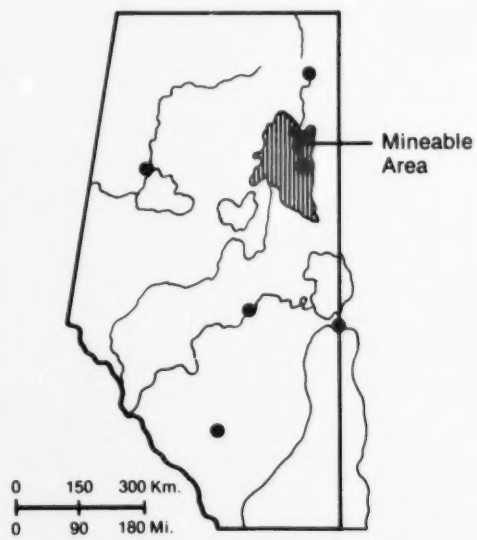


Figure 9 Oil Sands and Heavy Oil Deposits in Alberta



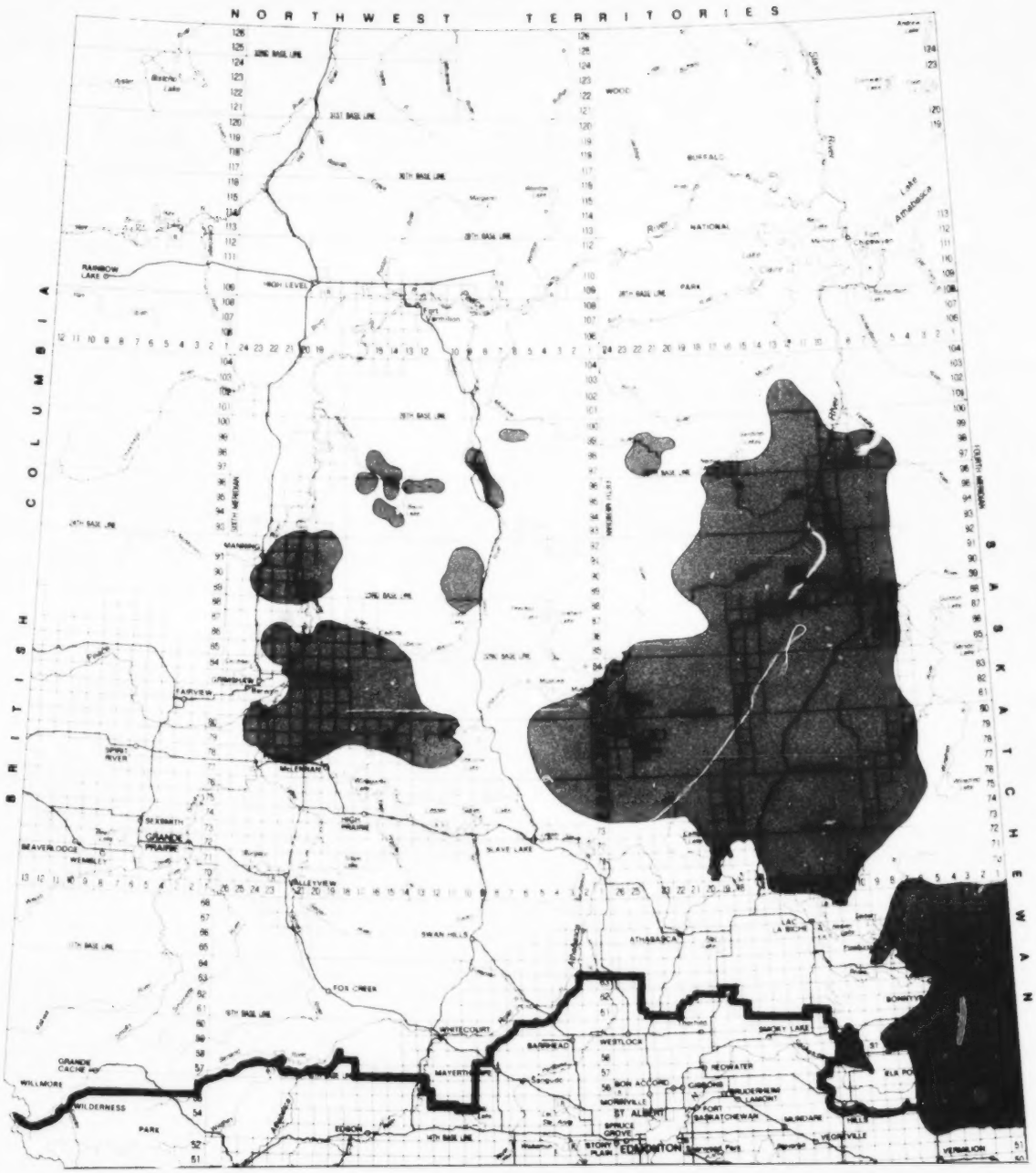
[1] Alberta Chamber of Resources Report.

[2] Alberta Energy Resources Conservation Board, *Alberta Oil Supply 1983-2007*, ERCB Report 83E, December 1983.

[3] *Oil and Natural Gas Resources of Canada 1983*, Geological Survey Paper 83-1, 1984.

[4] These reserves are easily accessible within 50 metres of the surface.

Figure 10 Oil Sands Deposits, 1982



Scale 1:4,000,000

Source: Alberta Bureau of Surveying and Mapping

Interest in developing oil sands and heavy oil deposits has gained significant momentum recently and an extensive number of projects are planned and/or underway. Appendix III presents a summary of heavy oil and oil sands activity in Alberta with planned capital expenditures under 20 million dollars as of January 31, 1985. Appendix IV highlights the large scale (over $20 million) oil and gas projects.

Existing oil and gas pools are shown in Figure 11. Of particular interest at present is conventional oil and gas exploration in north central Alberta (Red Earth), further development of the Elmworth field, and enhanced oil recovery in the Swan Hills region.

Main pipelines and gas plants are shown in Figure 12, and while several of these have experienced staff reductions in recent years due to the soft gas markets, most of the plants anticipate at least another 20-year life expectancy.

Provincial coal resources in northern Alberta are shown in Figure 13. Coal exploration is at a low level with a significant oversupply situation in world markets. This is not expected to change in the next five years.

New thermal power sites within the province are not expected to be developed until justified by long-term demand which is not likely for at least another ten years. Appendix IV identified some of the proposed major coal electrical projects.

Selected other mineral resources are shown in Figure 14 and although considerable efforts have gone into the evaluation of the potential of some of these deposits (e.g., granite), no significant development is forecast. In the case of granite, the distance to markets and competition from precast concrete and other materials are prime drawbacks to development of this resource. New techniques are being investigated to make granite more competitive.

The northern part of the Province also contains some 13,000 square miles of peat, but this resource is considered to be of low quality and generally not easily accessible.

Recent changes in federal government attitude are expected to encourage resource development. Two examples include: 1) revisions to the National Energy Agreement and deregulation of prices for "old oil" on April 1, 1985, commonly referred to as the Western Accord; and 2) the removal of the progressive gas royalty tax which should lead to increased exploration.

3. Economic Development Opportunities

Of greatest impact in the near future will be tar sands expansion, commercialization of heavy oil projects and the implementation of new pilot projects (in both heavy oil and tar sand). Appendices III and IV summarize the projects planned and/or underway.

The impact of the development of another tar sands facility similar to the Alsands project would be massive. The Canadian Energy Research Institute's (CERI's) recent study conducted for the Alberta Chamber of Resources, indicated that some 35,000 direct and indirect jobs would be created during the construction period and 13,000 direct and indirect jobs would exist for the 30-year life of the project. For every 10 barrels per day of oil produced 2.5 construction jobs and one permanent operating job are created. Further, the construction jobs would become permanent if the resource were to be developed in an ongoing steady manner. Some 43 per cent of the construction and 67 per cent of the operation jobs would flow to the Alberta economy.

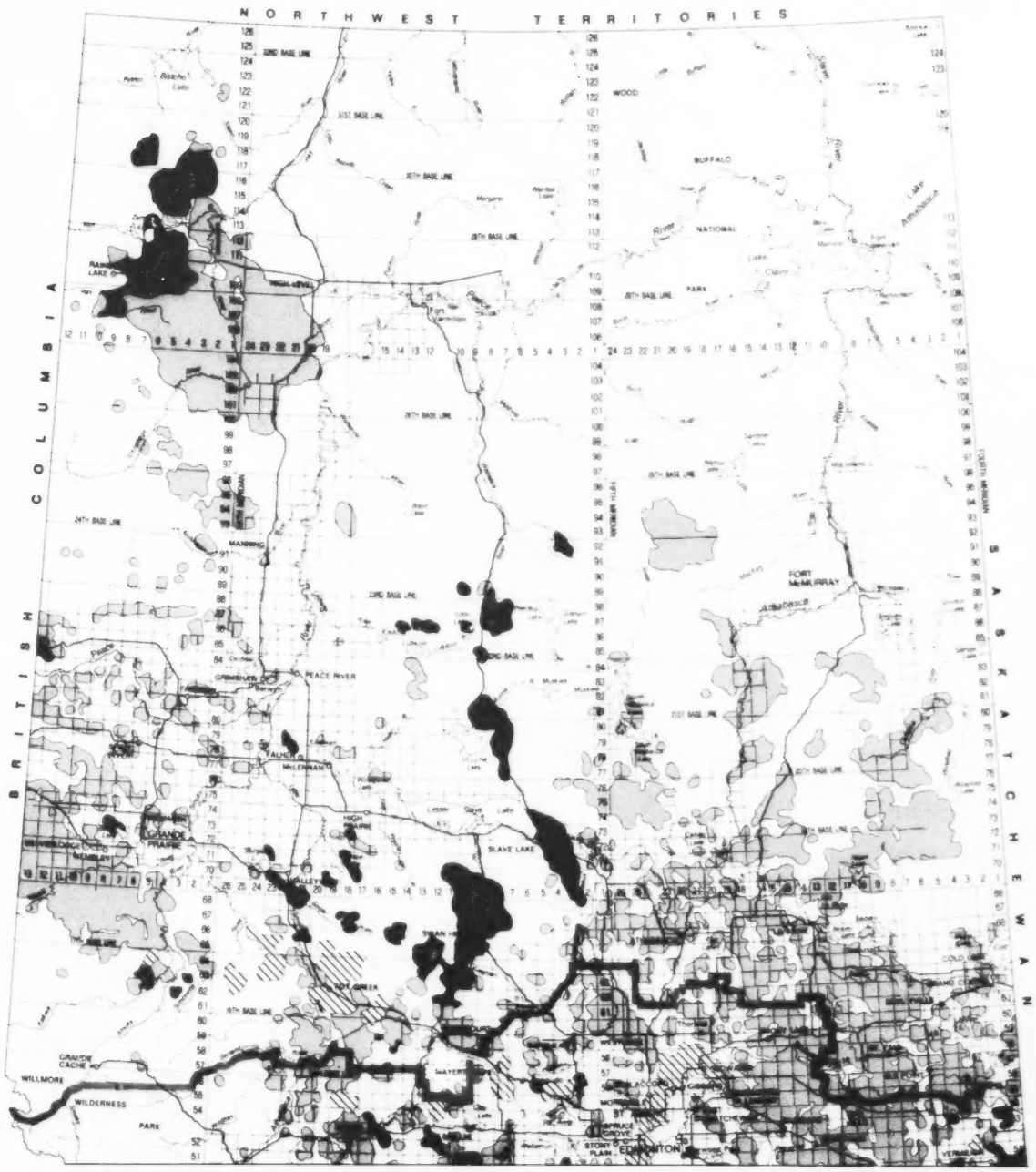
While these projects will provide significant direct employment opportunities, they will also provide important spin-off business opportunities. The encouragement of good corporate citizenship such as that displayed by some companies would also help.

There is a substantial opportunity to enhance the spin-off benefit for the northern economy from that which has been the case in the past. Northern communities have in the past found it difficult to access spin-off opportunities, particularly if there are no oil and gas service businesses in their community. Some activities which can be undertaken by communities and oil companies to enhance local benefits include:

- Establishment of good communications with the oil company and major contractors to let them know what the community has to offer and to find out what is required.
- Early preparation of construction and maintenance contracts so there can be full dissemination of bidding specifications to local businesses. The posting of contractors names, phase numbers, and types of work awarded will help local businesses know whom to approach concerning possible sub-contracts.
- Breaking contracts into smaller sized packages suitable for local contractors.
- Attachment of local content criteria for sub-contract work.

Exploration and development for conventional oil and gas on leases previously reserved for the Alberta Oil Sands Technology and Research Authority for heavy oil represent an opportunity for northern Alberta. This opportunity would involve exploration of 115 000 hectares of oil sands reserve land near Athabasca, Fort McMurray, Peace River and Wabasca for conventional oil and gas (i.e., below the oil sands deposits).

Figure 11 Oil and Gas Pools, 1982



Oil Field

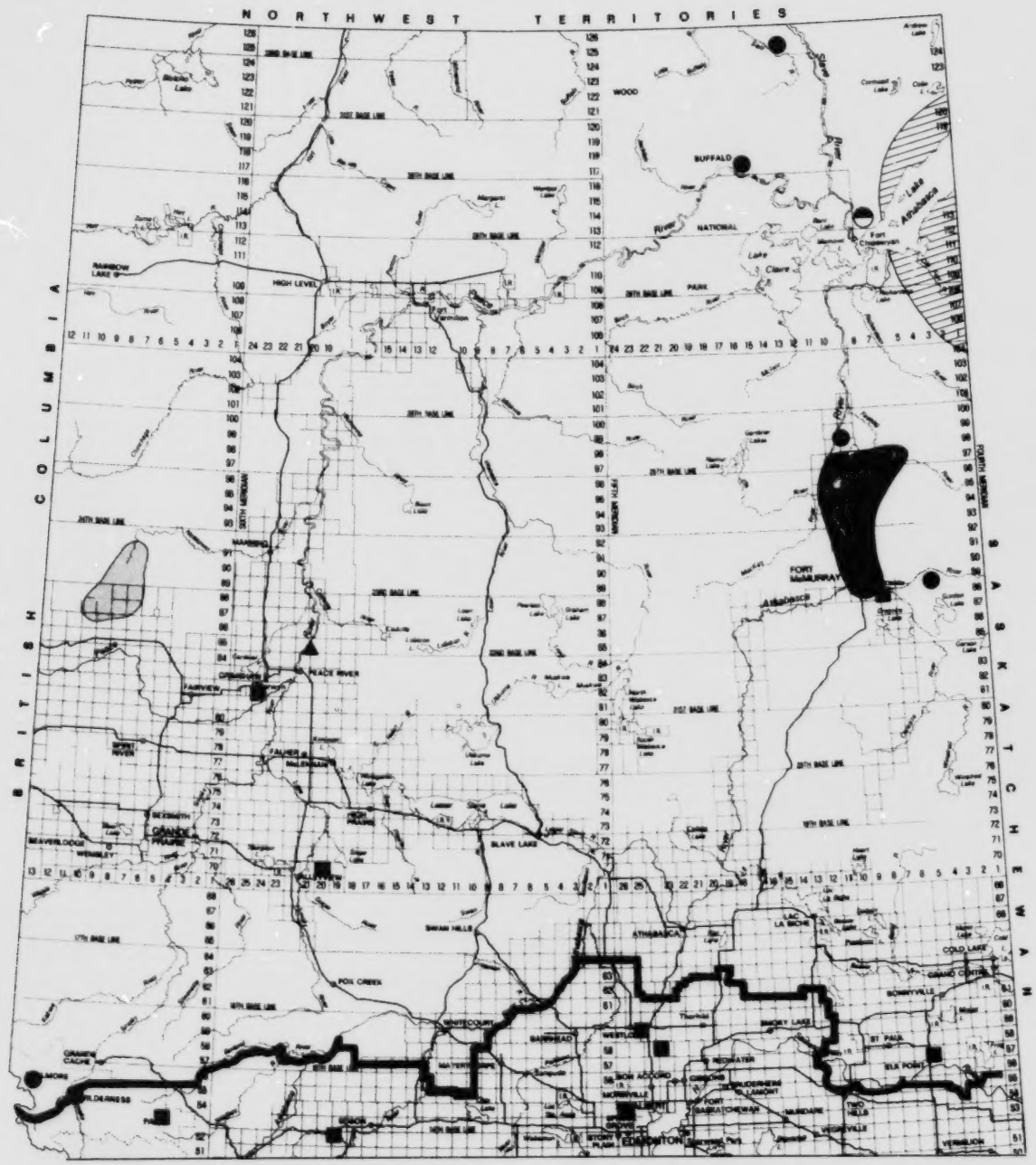
Gas Field

Oil and Gas Field

Scale 1:4,000,000

Source: Alberta Bureau of Surveying and Mapping

Figure 14 Selected Other Mineral Resources, 1982



Iron Formation

Uranium (Prospective Area)

Vanadium, Nickel, Titanium and Zirconium (Oil Sands Area)

- Gypsum Deposit
- Silica Sand Deposit
- Dimensional Stone Deposit
- Limestone-Marlcoquina Deposit

Scale 1:4,000,000

Source: Alberta Bureau of Surveying and Mapping

Continued conventional oil and gas exploration in the Red Earth, Elmworth and other areas should support development of an expanded/ enhanced servicing industry for such communities as Slave Lake, Peace River, High Prairie, and others.

The new seismic techniques which have recently been developed are able to pinpoint oil deposits much more accurately than in the past to discover pinnacle reefs and smaller deposits of oil. These developments have resulted in the rejuvenation of exploration activities in previously well explored areas such as Rainbow Lake/Zama Lake.

Markets for Canadian natural gas are expected to enjoy very substantial recovery from a low of 700 billion cubic feet (BCF) (1983) as follows: 900 BCF (1985), 1.45 trillion cubic feet (TCF) (1987), 1.76 TCF (1990).[1]

With a favorable world price for new oil, further enhanced oil recovery projects (e.g., missible flood) are likely. At the present time, there are 17 projects underway and some 30 proposed before the Alberta Energy Resources Conservation Board.

Some of the longer-term non-renewable resource opportunities include:

- Extraction of vanadium and mylobdenum proposed from heavy oil sands tailings at Lac La Biche and Fort McMurray.
- Possible coal liquifaction (i.e., combination of sub-bituminous coal with heavy oil) proposed for the Judy Creek area.
- Possible long-term thermal coal power projects such as the proposed joint venture between Esso and TransAlta Utilities.
- Further potential processing of sulphur.
- Granite at Fort Chipewyan, iron ore in the Clear Hills, silica sand near Peace River, and coal at Grande Cache.

4. **Constraints to Development**

Nearly all of Alberta's non-renewable resource products are sold at prices which depend on world market conditions. While this situation may be perceived as positive or negative depending upon current world prices, the lack of provincial control over prices is considered to be a constraint.

In the case of natural gas, unfavorable prices and soft U.S. markets curtailed exploration in the early 1980s. Market conditions are expected to improve very substantially over the next two to four years. This is already starting to happen.

An enormous imbalance in supply and demand is a key problem for the coal industry. Optimistic expectations in the late 1970s led to the development of new mining operations worldwide. This, in turn, has led to serious oversupply and significant competition. High transportation costs for Alberta's coal further compounds the problem.

Further development of regional infrastructure (particularly roads) is required as a lever to resource development. Two examples include the needed upgrading of Highway 67 from Slave Lake to Red Earth, and the extension of the road to Conklin.

[1] Canadian National Energy Board Forecast.

Forestry

1. **Economic Development Goals and Needs**

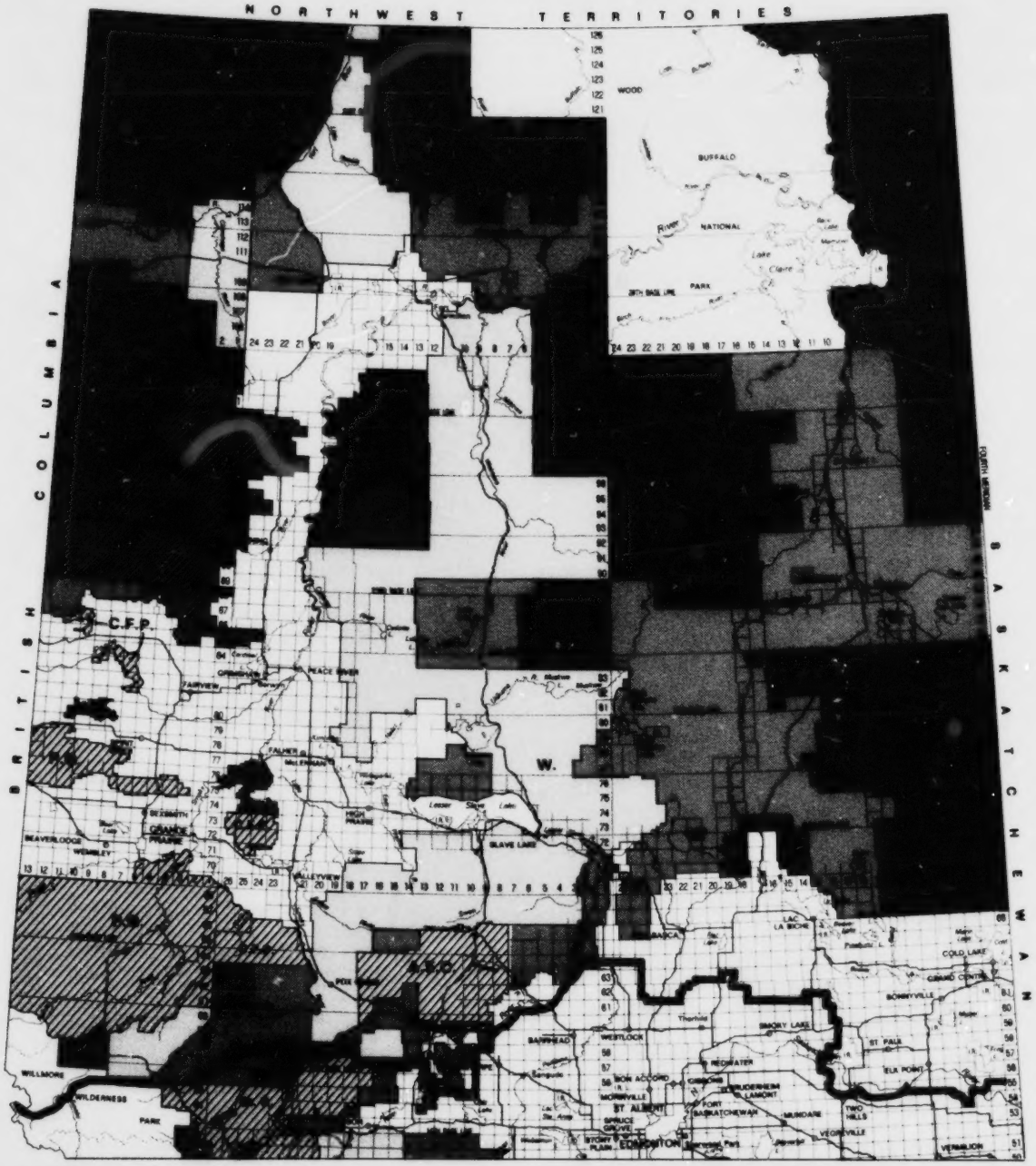
The study process identified two general goals for the development of the forest resources in northern Alberta. These were:

- to encourage further development of existing types of forest-related primary and secondary industry (e.g., dimension lumber, panel boards). Some form of government initiative may be necessary to attract additional forest industry.
- to capitalize on Alberta's extensive underutilized reserves of aspen. It is estimated that only four per cent of the annual allowable cut is currently being used.

2. **Forest Resources and Assets**

The undeveloped forest resources of northern Alberta represent one of the most significant fibre reserves in North America. In physical terms, the potential annual supply of uncommitted softwood timber totals about four million cubic metres (m^3) and the comparable hardwood volume may well be in excess of 10 million m^3. In addition, the sawmills of northern Alberta could produce a much greater volume of softwood residual chips if there were a profitable market for this added production. Existing forest resources are shown in Figure 15.

Figure 15 Forest Resources, 1985



Existing Forest Management Areas

Provisional Reserve Areas

Areas Not Managed for Timber Resources (Settled, Metis Colonies, Federal Lands, etc.)

Proposed Hardwood Forest Management Areas

Scale 1:4,000,000

Source: Energy and Natural Resources

Quota Commitments

0% of Coniferous Cut

1-50% of Coniferous Cut

51-100% of Coniferous Cut

St.R. - St. Regis (Alberta) Ltd.
C.F.P. - Canadian Forest Products Ltd.
A.E.C. - Alberta Energy Company Ltd.
W. - Weldwood of Canada Ltd.
P.G. - Proctor and Gamble Company of Canada Ltd.

The present annual allowable cut in northern Alberta is 12 million m^3 for softwoods and 11 million m^3 for hardwoods (see Figure 16). To date, some 57 per cent of the annual allowable cut for softwoods and only four per cent of the hardwood resources have been committed.

Approximately 75 per cent of the unallocated softwood timber supply is located in the northern two-thirds of the region. Much of this northern timber is in stands which are remote from established infrastructure. For this reason, about half of it should be regarded as economically inaccessible. In the more developed and accessible forests of the southern third of the region, the vast majority of the larger diameter (over 25 cm in diameter at breast height) softwood timber can be considered as allocated to, and required by, existing industry. Consequently, much of the most accessible softwood timber available for forest industry expansion is smallwood. In total it is estimated that the economically operable portion of the unallocated softwood annual cut is about 2.0-2.5 million m^3.

Although the species composition of the supply will vary by subregion, it is about evenly divided between white/black spruce and lodgepole/jack pine. It does not appear that many Alberta mills are now equipped to handle this smallwood resource.

Based on the latest inventory data, the abundant hardwood resource is made up of 81 per cent aspen, 15 per cent balsam poplar, and 4 per cent white birch. About 30 per cent of the aspen volume is in older, mature to over-mature stands. The incidence of decay in these aspen trees is too high for commercial exploitation. Of the remaining timber, about 50 per cent cannot be used owing to access constraints. However, the economic availability of three to four million m^3 of hardwood timber in northern Alberta represents a tremendous opportunity and challenge since this volume is equivalent to ten times the current provincial harvest.[1]

3. Economic Development Opportunities

Several recent reports have identified a series of development options available to the forest sector of northern Alberta.[2] One of the more definitive studies[3] ranked opportunities according to technical, market and economic feasibility. This procedure has been adopted to rate the development options shown in Figure 17. The time horizon considered for new or increased capacity is 1985-1990.

The opportunities for other products such as panel board, dimension lumber and #1 clear boards were also investigated. These are discussed below.

Bleached Chemi-Thermal Mechanical Pulp: an economic bleached CTMP mill can be constructed for less than 50 per cent of the cost of a bleached kraft pulp mill and the pulp yield per ton of wood input is twice as high. Consequently, production economics are much more favorable.

Lightweight Coated Paper: the market outlook for this paper grade is characterized by rapid growth in consumption and real (constant dollar) price increases. There are presently no producers of this paper in western Canada and the prospects for a mill in Alberta appear to be reasonably good.

Expanded Use of Aspen in Pulping: recently, Procter and Gamble has undertaken harvesting of aspen and commenced experimental pulping. The use of aspen in existing mills would now appear to be technically feasible. The utilization of aspen in existing bleached kraft facilities or in a new CTMP mill will offer probably the best opportunity for utilizing the hardwood resources of northern Alberta.

Newsprint: the serious oversupply situation which existed for newsprint for 1980-82 has changed to the point where capacity and demand are approaching a balance. However, expansion at existing mills and planned new capacity (e.g., Great Lakes paper in Washington State) should be sufficient to cover increased demand up to the end of the 1980s. An Alberta newsprint mill could become an attractive opportunity by the early 1990s.

Specialty Wood Products: good market opportunities have been identified for several specialty items but further study is required to ascertain site-specific profitability.

For any of the above opportunities to be met, the pulp and paper industry requires a plentiful supply of aspen in the appropriate age classes. In northern Alberta, this requirement appears to be best met in the Grande Prairie, High Prairie, High Level and Manning areas. Other requirements include: competitively priced electrical energy, natural gas, a high volume of clean water, rail transport to the marketplace, established infrastructure, and a skilled labor force.

4. Constraints to Development

There are at least six significant constraints to the further development of the forest resource sector. These are discussed below:

- The demand for forest and timber resource products is primarily from outside of Alberta. Hence the nature and pace of development in Alberta is determined by external market forces. International market fluctuations will continue to be transmitted directly to northern Alberta.

[1] Woodbridge, Reid, March, 1985.

[2] See for example studies by Woodbridge, Reid and Associates, 1983; Carroll-Hatch Limited, 1983; Jaakko Poyry International Limited, 1983.

[3] Woodbridge, Reid and Associates, 1984.

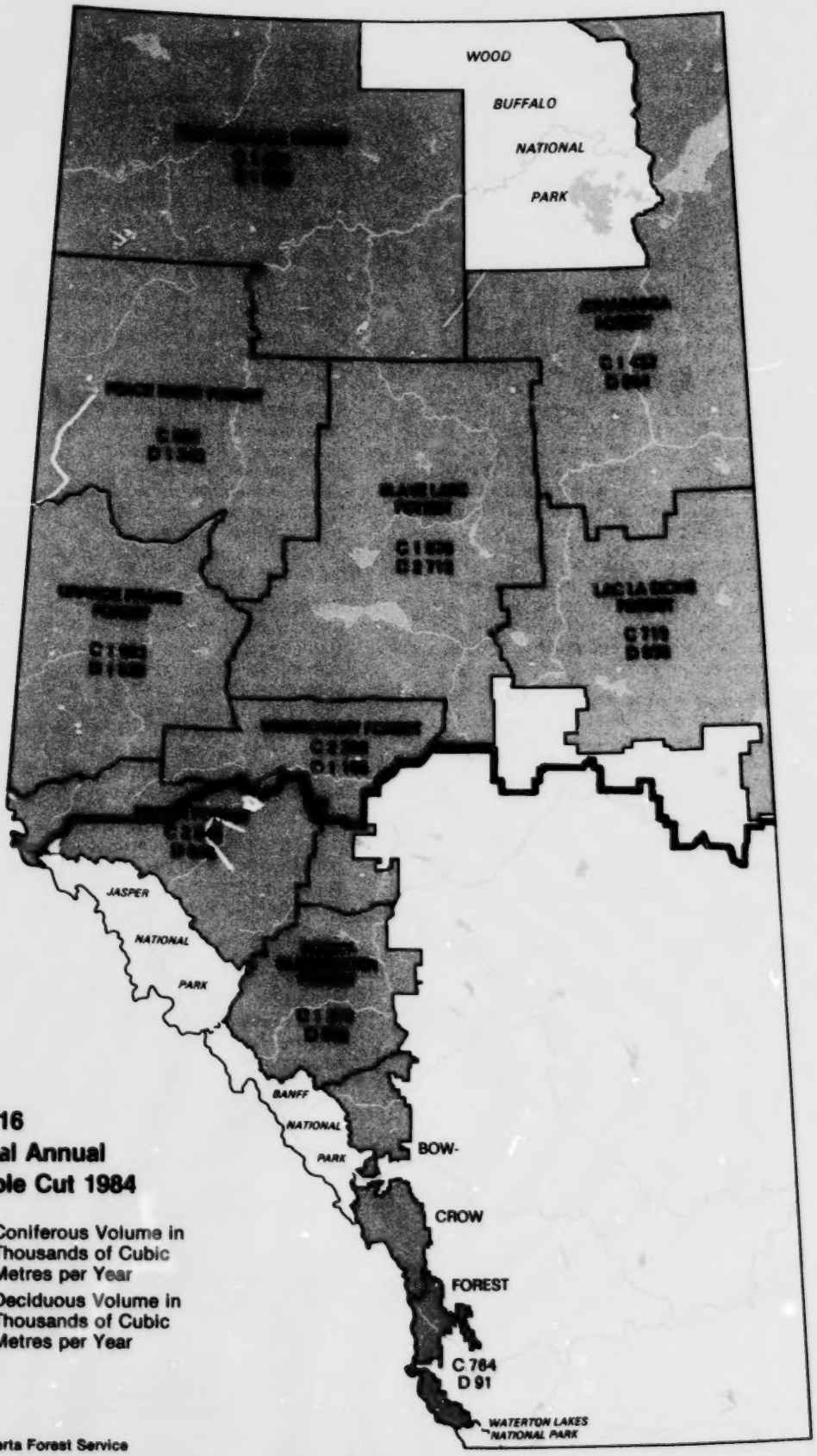


Figure 16
Potential Annual Allowable Cut 1984

C 1,280 Coniferous Volume in Thousands of Cubic Metres per Year

D 510 Deciduous Volume in Thousands of Cubic Metres per Year

Source: Alberta Forest Service

Figure 17 Summary of Development Options Available To the Forest Sector of Northern Alberta

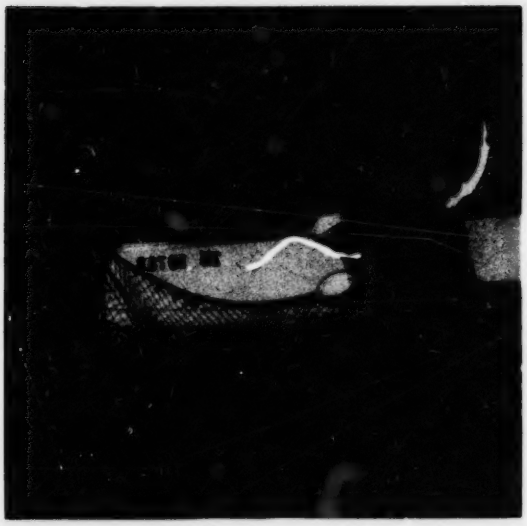
Manufacturing Option	Feasibility Rating[1] Technical	Market	Economic	Overall Rating
Sawmilling of Softwoods				
a) dimension lumber	H	M-L	M-L	L-M
b) boards	H	M-H	M	M-H
Sawmilling of Aspen				
a) dimension lumber	M	L	M-L	L
b) industrial lumber	H	L	M-L	L-M
c) specialty items	H-M	M	M-H	M-H
Secondary Wood Products				
a) interior wall panelling	H	M	?	?
b) laminated boards	H	M-H	?	?
c) interior shutters	M	M-H	?	?
d) windows and doors	H	M	M	M
e) cabinets and furniture	H	M	M	M
f) millwork and custom cabinets	H	L	L	L
g) trusses	H	L	L	L
Plywood				
a) standard sheathing	H	L	M-L	M-L
b) specialty	H	M	M	M
Composite Boards				
a) waferboard/OSB (aspen)	H	L	M-L	L
b) medium density fibreboard	H	L	M-L	L
c) particleboard	H	M-L	L-M	L-M
Market Pulp				
a) bleached kraft - softwood	H	M	L	L-M
b) bleached kraft - aspen	H	H	L	M-L
c) bleached CTMP - softwood	H	M-H	M-H	H-M
d) bleached CTMP - aspen/spruce	M-H	M-H	M-H	M-H
e) thermo-mech. (TMP)	H	L	L	L
f) refiner-mech. (RMP)	H	L	L	L
g) pressurized groundwood (PGW)	H	L-M	L	L
h) semi-chemi. (NSSC)	H	L	L	L
Paper/Paperboard				
a) newsprint				
- softwood mech./kraft	M	L-M	L-M	L-M
- aspen mech./kraft	L	L-M	L	L
b) uncoated woodfree papers	H	L	L	L
c) uncoated groundwood papers	M	H	M-H	M
d) lightweight coated papers	M	H	M-H	M
e) tissues	L	L	L	L
f) other papers/paperboards	L-M	L	L	L

Legend: H - High, M - Medium, L - Low

[1] Feasibility Rating Definitions. **Technical Feasibility:** Is the process technically feasible? This takes into consideration the suitability and acceptability of the timber resource and other technical factors. **Economical Feasibility:** Is the process economically feasible in Northern Alberta? The ranking of economic feasibility takes into account very broad parameters of capital costs, operating costs, transportation costs, the need to import specific raw materials and the cost competitive position of the product in export markets. **Market Outlook:** Is there a market for the product? The distinction between market outlook and economic feasibility is important. A product can have a very favorable market outlook yet may rank as a low priority for a specific region, because of, for example, high transportation costs to get the product to market.

- A proposed U.S. bill to limit softwood exports to the U.S. could harm Alberta mills. The proposal is to restrict the Canadian supply to 25 per cent of the U.S. market, down from a 30 per cent share. Canadians presently enjoy a 25 per cent price advantage due to currency differences.
- There is concern that Alberta does not have a complete, up-to-date inventory of provincial timber resources. The existing inventory has poor species composition and is largely based on old (ca. 1971) aerial photographs.
- The shortage of access roads to forest reserves inhibits some development, but a lack of mills close to the forest resource is a greater constraint.
- Commercial requirements for aspen in large quantities have not yet been defined.
- As much as 30 per cent of Alberta's aspen stands are considered over-mature with a rot content too high for commercial use.

Fish and Wildlife



The fish and wildlife resource sector has a variety of roles to fulfill, both as an area for economic development in its own right, and as an adjunct to tourism and recreation development. These roles are reflected in the goals for the sector.

1. **Economic Development Goals and Needs**

   A broad range (and often conflicting) number of goals were identified for the fish and wildlife sector. They include:

   - Evaluate hunting and fishing regulations from a conservation perspective.
   - Ensure that fish and wildlife populations are protected from severe decline.
   - Review/establish water quality, lake enhancement and fish stocking programs in order to maintain and strengthen tourism development.
   - Provide programs to upgrade the operational skills of commercial fishermen.
   - Review/update management objectives for sport and commercial fishing. Issues for resolution include:
     - balancing angling opportunities with fish populations
     - providing adequate income for commercial fisheries
     - creating more manageable fisheries
   - Resolve the priority of the trapping industry as a component of northern Alberta's economy.
   - Develop a complete understanding of the cumulative impact of resource and agriculture development on trapping.
   - Review lake management policy to determine priorities for domestic fisheries, sport fishing and commercial fishing.

2. **Fish and Wildlife Resources and Assets**

   Commercial fishing lakes are shown in Figure 18. Lesser Slave, Utikuma, Cold Lake, Lac La Biche and Lake Athabasca are the most important commercially. There are about 1,000 licensed commercial fishermen, of whom only some 85 are full-time.[1]

   The new agreement with the Fresh Water Fish Marketing Corporation and changes in Alberta legislation appear beneficial to Alberta fishermen. Provisions include royalty reductions, transportation subsidies, and less restrictive marketing requirements.

   The main wildlife species hunted in northern Alberta are moose, elk, black bear and deer. The annual spin-off value to the guiding industry is estimated at $7.5 million.[2]

   The major fur bearers trapped in northern Alberta are lynx, coyote, muskrat and beaver. During the 1980 season, raw fur harvested amounted to $15.6 million (a peak year), but declined to about $8 million in 1982.[3] There are about 2,000 registered trappers in northern Alberta, and of these, 65 are full-time. Of the 2,000 registered, some 500 are farmers.

   Trapping has essentially become a part-time occupation. Although the trapping industry has declined, trappers will continue to operate despite poor economics because it is part of their lifestyle.

3. **Opportunities for Development**

   Key opportunities for economic development in the fish and wildlife sector include:

[1] 1981 Census, Alberta Energy and Natural Resources, March, 1985.

[2] AENR, March, 1985.

[3] Alberta Resources, 1982.

Figure 18 Commercial Fishing Lakes

Commercial Fishing Lakes

Scale 1:4,000,000

Source: Energy and Natural Resources

- Enhancement in the area of the commercial fishing license system to provide a more stable, economic industry.
- Increasing the viability of fisheries through fish enhancement projects.
- Production of buffalo and elk products. These may have potential if domestication legislation is passed, necessary infrastructure for processing is put in place, and herds are developed.
- Opportunities for game ranching include:
  - a good supply of wild meat, hides and specialty products
  - export of animals as breeding stock, and
  - recreational use of game ranches

4. **Constraints to Development**

Restraints affecting the development of the fish and wildlife resource reflect its diversity. Some of the key constraints include:

- Split federal/provincial jurisdiction in the management of fisheries. There is concern that this split jurisdiction results in slow reaction to fishery management needs.
- Inadequate controls on domestic fisheries necessary to protect the resource. There is concern, for example, that there are too many commercial fishermen in the province. and, as a result, many fishing operations may not be economic.
- Depleted stocks will likely require restrictive fishing regulations until stocks improve. A need for enhanced spawning areas and the possible closure of spring fishing (spawning season) may be necessary.
- Negative public reaction to "shooting preserves" restricts game ranching.
- Use of public land to support game ranches, and negative impact on guiding, outfitting, and the sporting industry is also restrictive.

Retail/Service/Commercial Sector

1. **Economic Development Goals and Needs**

The goals for the development of the retail/service/commercial sector reflect a desire by northern residents to enhance local services and improve and maintain existing businesses. These goals and needs include:

- Reduce the loss of retail business to large centres (leakage). Good road networks in northern Alberta have resulted in considerable retail leakage to such larger centres as Edmonton, Grande Prairie and Peace River. Many northern residents would like to see their local retail and service sector broadened to help reduce this leakage.
- Improve northern community image through town beautification and redevelopment. Many northern communities could benefit from clean-up programs and commercial core redevelopment.
- Review need for scheduled commuter/feeder airline service to overcome the impact of distance. Some communities in northern Alberta (such as High Prairie and Grande Cache) could benefit from regular air service.
- Hospitality training and upgrading programs must be established so that the North can benefit from the tourism industry.

2. **Economic Development Opportunities**

Several selective retail opportunities appear to exist in most communities. Further, almost all northern communities could benefit from local business improvement programs to help with image and reduce leakage.

The opportunity exists to improve the retail sector and reduce leakage by carrying out town beautification and core re-development projects in many cities and communities.

Adjustments to government purchasing policy have created, and should continue to create, supply opportunities for many northern businesses. To take advantage of these opportunities, firms will have to:

- develop awareness and understanding of government purchasing practices
- ensure that their firms' names are on supply sourcing lists
- be competitive

Many communities have the potential to work with major resource developers within their regions in developing local purchasing policies and identifying business opportunities.

3. **Constraints to Development**

The existing population base in many communities is often too small to support more than one store or commercial establishment of any given type. As a result, several communities have developed the image of "one store towns" which has led to retail leakage. This could be either because there is a lack of competition or because there is no

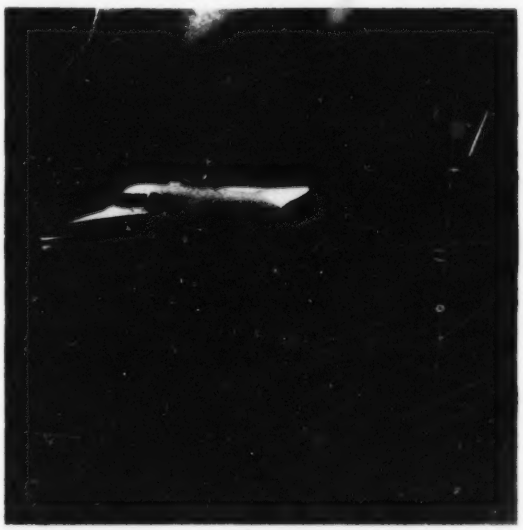
choice in the home community. Also, in response to the recent recession, many retail outlets have broadened their product lines, resulting in decreased specialization and increased local competition.

Conversely many northern Alberta service firms have narrow product lines tied to industries sensitive to business cycles. Sometimes this lack of diversity makes it hard for these firms to survive downturns in the economy.

Often common constraints that were identified during the interview and seminar process included:

- High transportation costs for small business
- More centralized control of banking and financial institutions as a result of the recession with ensuing stringent loan terms and conditions
- Lack of investor confidence in some areas as a result of the recent recession
- Reluctance of some financing organizations to guarantee loans outside of major metropolitan areas resulting in difficulty in financing apartments and houses
- Inflated residential and industrial land prices in some centres
- Centralized control of chain store operations which decreases local managerial flexibility in meeting local market needs.

Infrastructure



Infrastructure refers to services and facilities necessary to operate a fully developed economy. It includes such diverse demands as roads, schools, hospitals, financial services, social services, transportation services, and many others.

1. **Economic Development Goals and Needs**

   A wide range of infrastructure goals and needs were identified. Some relate to physical facilities, others to policy revisions. They are summarized below.

   - Develop regional infrastructure (particularly roads) as a "lever" for economic development. Roads accessing resource development were viewed as having a very high priority by many northerners who provided input to the study. New initiatives to provide cost-sharing between industry and government should be considered.
   - Encourage local hiring and purchasing through local business development agreements attached to mineral, forestry, and other resource development rights. Large projects should be designed so they can be contracted out in small parcels.
   - Improve communication among government, industry and northern residents with respect to future planning on large projects.
   - Evaluate government policy on future resource town development.
   - Continue decentralization of planning and decision making to regional and local levels. Encourage local involvement from planning stages through to project completion whenever possible.
   - Improve community/regional economic development processes through:
     - development of a northern Alberta industrial development strategy
     - access to operational and venture capital funding
     - improved organization/planning and implementation
   - Seek favorable changes in federal transportation policy regarding the long distance shipment of goods.
   - Direct training and re-training to local employment needs through substantial community and business involvement.
   - Increase resources devoted to alcoholism and drug abuse.
   - Increase/expand distance education training programs, e.g., teleconferencing to support hospital staff education.
   - Establish major training programs to improve the hospitality industry's image and attitude.
   - Provide assistance to encourage development of cultural/historical attractions which could help retain tourists.
   - Review the role of public assistance and short term employment programs both on their impact on the motivation to work and their influence on the economic system.

2. **Infrastructure Resources and Assets**

   There has been very substantial government investment in the infrastructure of northern Alberta in the last 10 years. There have been major expenditures in health care, for road upgrading and construction, airport

construction, provision of water and sewer improvements and development of regional government offices and services.

In recent years new hospital facilities have been constructed in many centres including Athabasca, Fort McMurray, Fort Vermilion, Fox Creek, Grimshaw/Berwyn, Hythe, Lac La Biche and Swan Hills; there have been expansions and renovations to other hospitals such as the Bonnyville St. Louis and the Grande Prairie Queen Elizabeth II (Services Building). The current capital construction program of the provincial government calls for even more new health care facilities including major developments at Grande Prairie (hospital expansion), Cold Lake (hospital replacement), Bonnyville (hospital replacement), Slave Lake (addition), Smoky Lake (replacement), Two Hills (replacement), La Crete (new ambulatory care centre), St. Paul (renovations and expansion to St. Theresa), Valleyview (renovations) and Wabasca (new facility). Appendix V provides further details on the construction program.

Figure 19 shows the primary highways and railways in northern Alberta as of 1982. Proposed major transportation developments include upgrading of Highways 63 and 67, upgrading and paving of several secondary roads (e.g., 897, 750) and construction of road links between Grande Cache and Grande Prairie, and another connecting the isolated communities of Conklin, Chard, and Janvier with Fort McMurray. This latter road may eventually be extended to Lac La Biche. A number of additional road requirements have been identified by the residents of northern Alberta. These are described in detail in Appendix VI.

Many northern communities such as Cold Lake, Slave Lake, High Prairie, Grande Cache, Grande Prairie, Peace River, Fort McMurray, Rainbow Lake and High Level now have upgraded airport facilities with paved runways and new terminal buildings. Most of these airports have scheduled daily airline service connecting to Edmonton.

The provincial government program of decentralization of government services has significantly contributed to the economics of several northern centres including Peace River, McLennan, High Prairie, St. Paul, Slave Lake and Lac La Biche. Some of the decentralized branches of government include Agriculture, Social Services and Community Health, Transportation, Energy and Natural Resources, Education and Labour.

3. **Economic Development Opportunities**

Further decentralization of government services will encourage stability and population growth in northern Alberta. Parallelling government decentralization, a similar decentralizing of industry may be possible. In this case, regional planned decentralization is desirable. The locations of oil company regional and head offices are an example.

Expansion of hospitals in northern Alberta will provide opportunities in both construction and in operation.

Other developments of a governmental nature that are likely to be beneficial include:

- Improved communications and educational programs like vocational college programs, satellite television, and other education programs that appear to be responsive to specific industry employment needs
- The tax reduction "holiday" announced by the Alberta government, effective April 1, 1985, which is to be in effect for five years and which should help support manufacturing and processing industries
- The three year, $24 million municipal road improvement program requiring that 50 per cent of supplies and services be purchased from the private sector.
- The proposed inland container port, under development in Edmonton which could improve the movement of goods from the northern part of the Province

Opportunities in education include:

- Delivery system development, especially in distance education technology and techniques to increase accessibility
- Programming that concentrates on resource development spin-off, cottage industries and small business development and management.

Population to doctor ratios indicate opportunities for the establishment of practices in such northern centres as Slave Lake, Whitecourt, Peace River, Fairview, High Prairie, High Level, and Fort Vermilion.[1] There are an estimated 25 to 30 spots open. The recently announced provincial rural doctor incentive program should help to fill the vacancies.

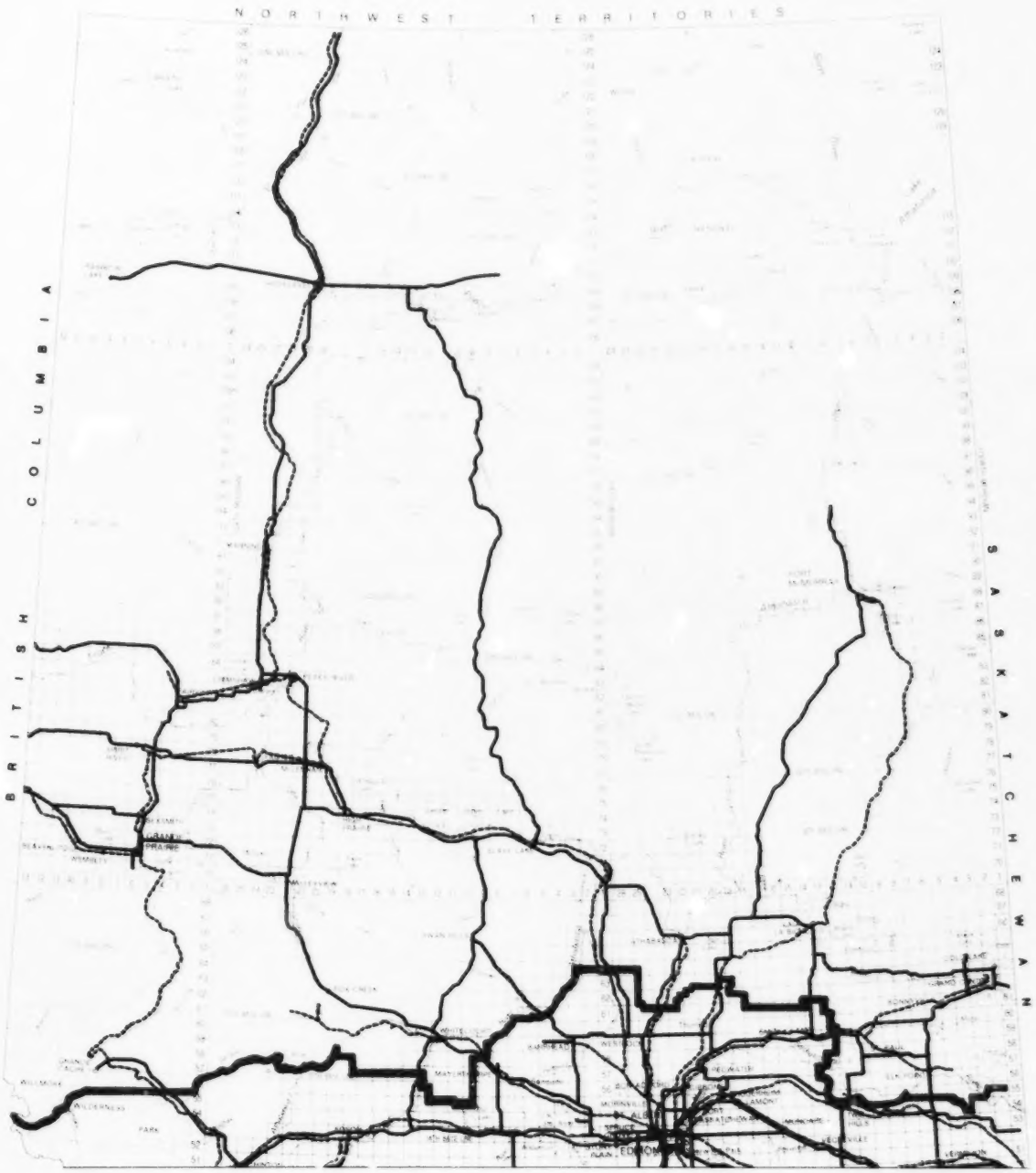
4. **Constraints to Development**

The constraints to economic development of an infrastructure/public policy nature are discussed below.

- Existing access occurs mostly in a north/south pattern. East/west connections are lacking with the result that large blocks of land are isolated.
- Government purchasing policies appear to hinder development of such local services as food processing and manufacturing. This has occurred because of:
  - order sizes beyond local capability, and
  - restricted access to bid invitations.
- Inadequate organization and understanding of the concept of economic development is a major constraint in many communities. Although every community expressed a need for economic development, few know how to go about it.

[1] Hickling Johnson Limited, 1982

Figure 19 Primary Highways and Railways, 1982



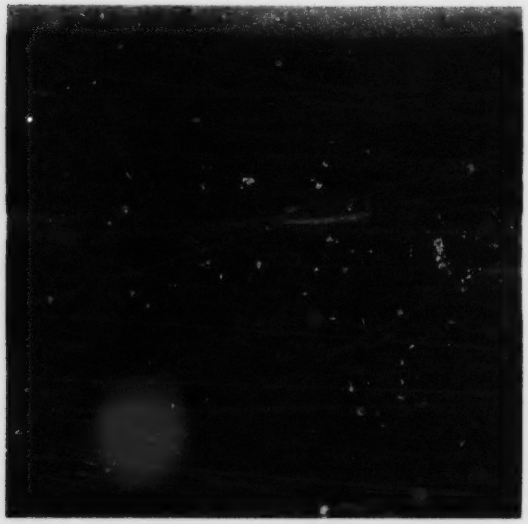
Primary Highway
Railway

Scale 1:4,000,000

Source: Energy and Natural Resources

- Housing was often noted as a constraint to development in rural areas and selected communities experiencing growth (e.g., Slave Lake, Grand Centre, Swan Hills, High Level, McLennan). In many cases there is a shortage of rental accommodation; in other cases the high percentage of company owned housing contributes little to local roots and community pride.
- Significant distances to markets often preclude the shipment of finished goods since it is cheaper to ship raw materials than finished goods; land-locked Alberta has significant transportation costs for such commodities as coal and grain.
- Compared with other northern regions of Canada, historical federal economic development classification systems have effectively left northern Alberta without access to many programs.
- Many approaches to economic development in native communities have been unsuccessful because they have not been long-term, nor economically viable.

Water Resources



1. **Economic Development Goals and Needs**

   The development goals for northern Alberta's water resources reflect water's diverse role in the economy. Goals for development include:

   - to ensure that the quality of northern Alberta's lakes and rivers is protected
   - to utilize water in northern Alberta for tourism and recreation, selected northern irrigation opportunities, hydro-electric generation and industry
   - to minimize the problems created by water erosion particularly in northwestern Alberta, and
   - to ensure that established provincial water management principles are applied and implemented.

2. **Water Resources and Assets**

   The headwaters of four major river basins fall within Alberta, with portions of three basins lying within Northern Alberta. These basins in order of area and importance are the Mackenzie River Basin, Churchill Basin and Saskatchewan/Nelson Basin. Within northern Alberta, the Peace River and the Athabasca Rivers are part of and drain into the Mackenzie Basin; the Beaver River drains into the Churchill Basin; and, the North Saskatchewan drains into the Saskatchewan/Nelson Basin.

   Approximately 64 per cent of the land area of Alberta lies within the Mackenzie River system. The system drains almost all of the northern half of the province. The river basins that form the Mackenzie system (the Athabasca, Peace, Slave and Hay Rivers) account for 87 per cent of mean annual river flow leaving the province.

   Over 90 per cent of the mean annual river discharge in the province comes from northern Alberta (see Figure 20), and over 80 per cent of this exits via the Slave River in the northeast corner of the province.

   There are numerous lakes that form part of the river basin system in northern Alberta. These lakes are among the largest in the province and represent a key resource to support tourism, recreation and commercial fishing. Some of the major lakes include: Lake Athabasca, Lake Claire, Bistcho Lake, Lac La Biche, Lesser Slave Lake, Cold Lake, Utikuma Lake, Peerless Lake, Wabasca Lake, and Calling Lake.

   The area occupied by Alberta lakes is usually listed as being 16 800 km² about two-thirds of which are located in northern Alberta. This does not include many thousands of temporary water bodies, marshes and muskeg that in spring have a much larger cumulative water surface.

   Northern Alberta also has major groundwater sources (aquifers). These are located in the Zama, North Lesser Slave Lake and Cold Lake areas. A comparative overlay of major oil reserves with major aquifers shows a strong positive correlation between major oil and water resources areas. This relationship is of important economic benefit since there is a growing use of water in enhanced oil recovery and tarsands development.

3. **Economic Development Opportunities**

   Although there are few direct benefits from the use of northern Alberta's water resources (i.e., direct sales), the water resources do provide many indirect benefits and opportunities. These are discussed below.

   - The further development of Alberta's fresh water lakes to support tourism/recreation and commercial fishing is a key opportunity.

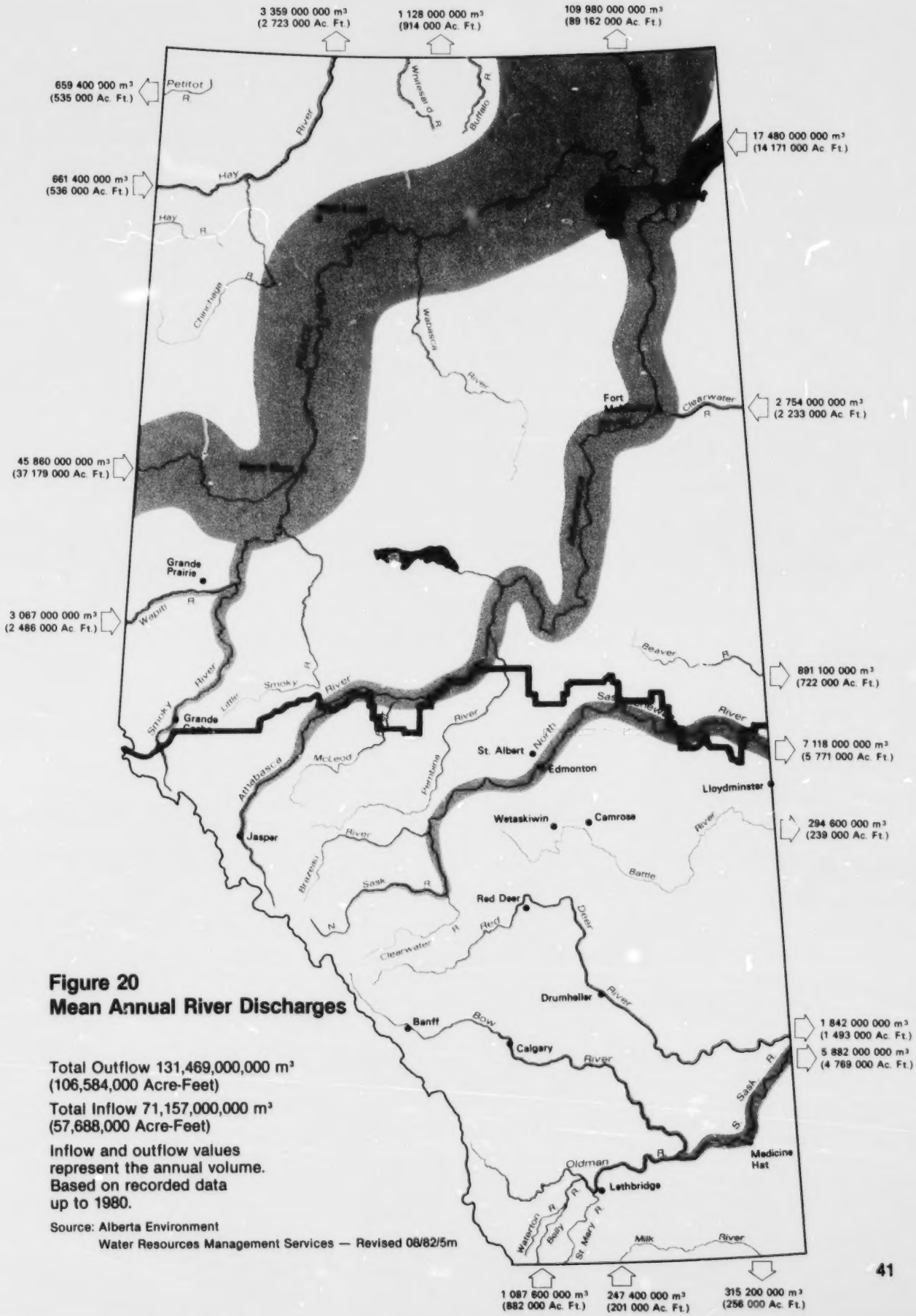


Figure 20
Mean Annual River Discharges

Total Outflow 131,469,000,000 m³
(106,584,000 Acre-Feet)

Total Inflow 71,157,000,000 m³
(57,688,000 Acre-Feet)

Inflow and outflow values represent the annual volume. Based on recorded data up to 1980.

Source: Alberta Environment
Water Resources Management Services — Revised 08/82/5m

The Lakeland Region of central northeast Alberta appears to have considerable potential for tourism/recreation as does Lesser Slave Lake in north central Alberta.

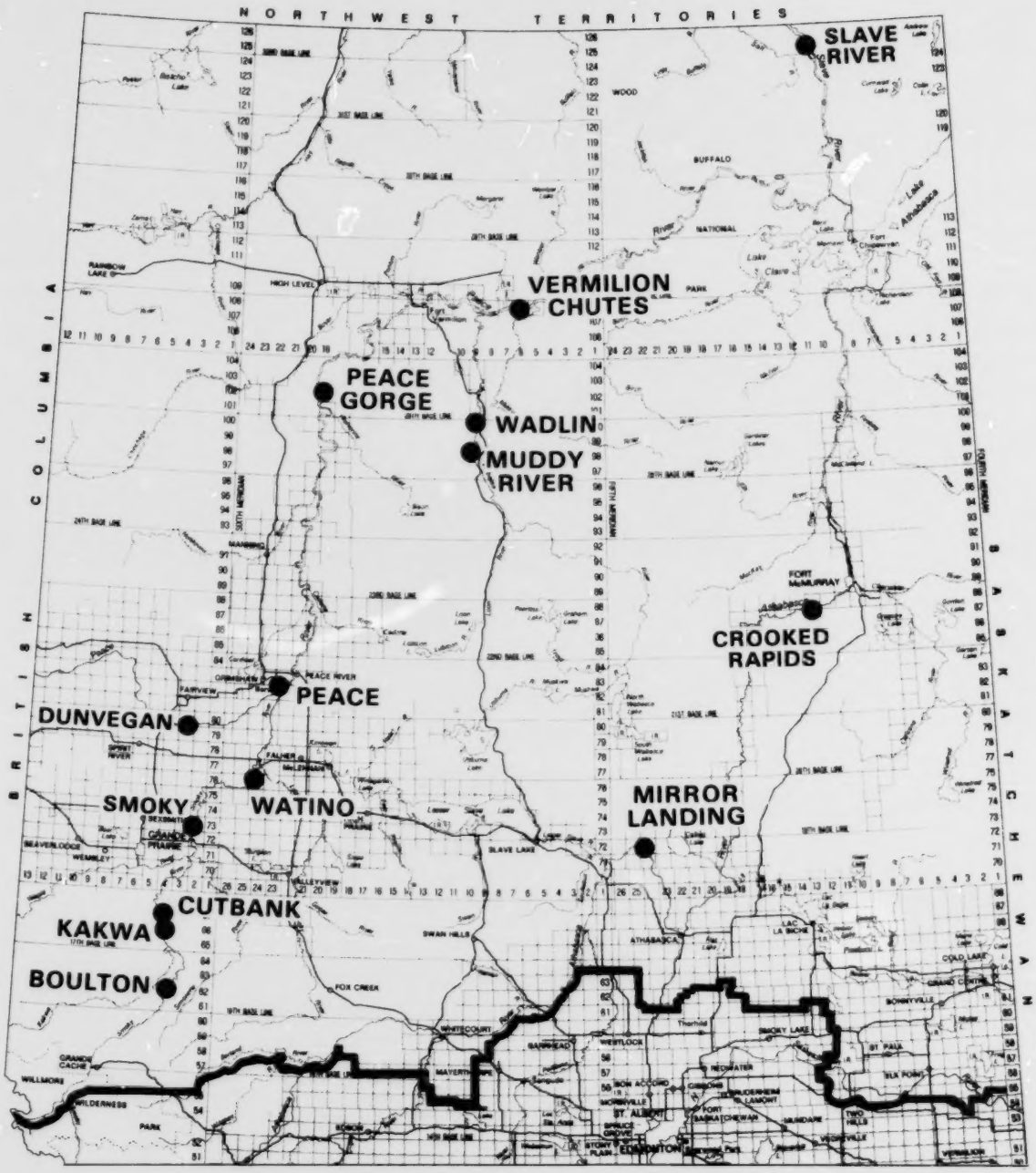
- Water will continue to play a significant role in oil recovery, particularly where water or steam are used to recover marginal reserves of conventional or heavy oil. Oil sands development, with its major losses of steam and evaporated water from plants and tailing ponds represents a growing area for water use. The industrial use of water will also expand as pulp mills are constructed in northern Alberta.
- Alberta's river systems have considerable potential to support hydro-electric generation, recreation, transportation and irrigation. A number of potential hydro-electric sites have been identified in northern Alberta (See Figure 21).[1]
- More effective land drainage and erosion control in northern Alberta is needed, especially in areas of the northwest.
- There is growing potential for recreational development along Alberta's northern river systems, particularly to support canoeing and riverboating. This will require construction of new access points and camping facilities. Excellent reach reports already exist for most of the rivers.

4. **Constraints to Development**

The isolation and inaccessibility of several of the largest fresh water bodies in Alberta (Lake Athabasca, Lake Claire, Bistcho Lake) are the major constraints to development. Another issue is the multiple-use demands for water in some areas, further, there is the strong concern for retaining traditional water uses (e.g., protecting wildlife habitat for trapping, commercial fishing). As the consumption of water in northern Alberta for irrigation, oil and gas recovery, oil sands development and pulp and paper production increases, effective water management policies will become essential.

[1] AENR, March, 1985.

Figure 21 Potential Hydro-Electrical Sites



● Location of Potential Hydro-Electrical Developments

Scale 1:4,000,000

Source: Energy and Natural Resources

Economic Development Issues and Opportunities in Northern Regions

As shown in Figure 1 in the front of this report, the study process divided the NADC area into eleven reporting regions. Detailed reports have been developed under separate cover describing the specific goals, resources, constraints and economic development opportunities in each of these regions.

The regional reports were based upon a process involving extensive local business, industry and community input. During the first six months of 1985, 27 northern communities were visited and more than 250 interviews were conducted with local business, community and industry representatives. Based on these interviews, preliminary reports were prepared for each of the regions. As a second round of data collection, eleven regional workshops and two community meetings were held. At each workshop the preliminary report was used as the basis for discussion and further input was solicited. The table below summarizes the workshop schedule and attendance.

The following sections of the report present brief summaries of the issues and opportunities affecting each region.

Region One: Lower Peace

1. **Introduction**

   The Lower Peace region is characterized by one of the most diversified "captured" economies in Northern Alberta. Its relatively remote location results in the localization of many goods and services which would normally only occur in a larger centre. The area draws strength from energy developments, forestry, agriculture and a strong government service base. The region has a young and aggressive population. The people are well-organized and exert strong efforts both collectively and individually to achieve the goals which the communities establish. The area is focused on the centre of High Level and the smaller communities of La Crete, Fort Vermilion and Rainbow Lake.

2. **Goals and Objectives**

   A number of goals and objectives of the people of the area relate to the development of such physical infrastructure items as resource and access roads, bridges, new land access, community expansion, schools, medical facilities, apartments and single family homes, affordable subdivisions and better grain handling systems. Other goals and objectives relate to a higher level of medical, professional and educational services in the region as a whole and specifically in the small communities.

   The centres of La Crete and Fort Vermilion wish to capitalize on the oil and gas development in the North Senex field. These areas also have a high demand for the opening of new agricultural land.

Workshops

Region	Workshop Location	Date	Number of Participants
1. Lower Peace Area	High Level	April 22	18
2. Upper Peace	Grimshaw	April 23	18
3. Remote Area of Central Northern Alberta	High Prairie[1]	January 11/12	65
	Wabasca*	May 7	12
4. Grande Prairie Area	Grande Prairie	May 2	20
5. Slave Lake, High Prairie Smoky River/Valleyview	High Prairie	May 6	12
	Slave Lake	May 8	16
6. Grande Cache Area	Grande Cache	May 30	14
7. Fox Creek, Whitecourt and Swan Hills Areas	Whitecourt	May 16	16
8. Fort McMurray Area	Fort McMurray	May 24	13
	Fort Chipewyan*	June 13	12
9. Lac La Biche and Athabasca Areas	Athabasca	May 9	30
10. Cold Lake, Grand Centre and Bonnyville Area	Grand Centre	May 29	14
11. St. Paul and Elk Point Areas	St. Paul	May 28	12

[1] The NADC sponsored a workshop for residents of isolated native communities to discuss employment and economic development issues. The workshop was used as the background for three region reports. The reader may wish to consult the Workshop Report: Employment Alternatives for Small Remote Communities, NADC, 1985.

* Denotes an afternoon or evening meeting with local business and community representatives.

The native communities are beginning to develop better economies based on the development of the forestry sector. The community of Rainbow Lake wishes to have a higher level of government service.

3. **Key Growth Constraints**

   There are a number of constraints to development. The lack of financing for commercial and apartment buildings is a serious impediment to development in such a rapid growth area. The size of population, distance from major centres and the nature of local markets restricts the level of service which can be provided. The region requires access roads to resource developments and to connect with other major routes. The grain shipments system is inadequate and must be addressed. The high cost-of-living and the perceived quality of life are deterrents to the location of some firms and their employees to the area.

4. **Economic Development Opportunities**

   There are a wealth of development opportunities. The major opportunities continue to be the supply of services to oil developments and to the large Canfor mill in High Level. Spin-off businesses continue to develop and are receiving investment both from local and external sources.

   There is good potential for higher crop yields and further expansion of the agricultural sector. This opportunity can be taken advantage of both through more intensive farming and the opening of new lands. Farm services such as equipment dealerships represent strong opportunities.

   Accommodation service is needed in all communities but most particularly in High Level. High Level also requires more industrial/ warehouse buildings to accommodate additional supply firms.

   Every community needs more retail services. These must be well-conceived but, with a captive trading area, promise every potential for success.

5. **Summary**

   The Lower Peace region is one of the most dynamic areas of the North. Its economic potential is apparently unlimited and its diversified economic base ensures continued health.

Region Two: Upper Peace

1. **Introduction**

   The Upper Peace region consists primarily of the communities of Peace River, Fairview, Grimshaw, Manning and their trading areas. Fairview, Grimshaw and Manning grew as agricultural service centres. This base remains as the dominant feature of their economies today. Although Peace River also has agricultural service roots, it has had stronger growth as a regional transportation and government service centre. All the traditional economies are now supplemented by a heavy oil project east of Peace River and the conventional oil and gas exploration and development in the Manning area. Forestry operations are also significant west of Manning and north of Hines Creek.

2. **Goals and Objectives**

   The communities of Peace River and Grimshaw are interested in a diversified economy with an expanded industrial base and both are attempting to attract oilfield service businesses. Each has a mature retail sector requiring some degree of upgrading to reduce business loss to other communities. Peace River would like to expand its extensive government service base since this has been an essential component of the local economy. Both centres believe that a concentrated effort to develop tourism would lead to the firm establishment of yet another economy.

   Fairview residents are striving for continued growth and development based on a firm agricultural base and the existence of Fairview College. Residents are proud of the quality of life and wish to ensure that any growth is accommodated in a fashion that will not negatively affect that lifestyle.

   The community of Manning wishes to accelerate its rate of growth through the development of area forest reserves, through expanded agricultural production, and from oil and gas industry spin-offs.

3. **Key Growth Constraints**

   The major obstacle to oil industry-related expansion of Peace River is the lack of an all weather access road connecting the community directly to highway #67 and the Red Earth field.

   Grimshaw faces a major difficulty in attracting industry because Peace River is the larger regional centre and Grimshaw is often viewed as a dormitory town.

   Fairview requires a new water system which will draw water from the Peace. The community is not well situated to take advantage of oil and gas or forestry activity.

   Manning area's population is too small to support many of the businesses and services desired by its residents. It has a limited trading area and is located in a young and largely undeveloped part of the province.

4. **Key Economic Development Opportunities**

   There are several economic development opportunities in each town or in the surrounding areas. Regional growth renders each town an ideal target for more retail outlets.

   Peace River could gain substantially by spin-off benefits from the Shell Three Creeks Heavy Oil Plant and by access to the Red Earth field. It is

also well-situated to exploit an excellent tourism potential but must develop a strong approach to this issue.

Grimshaw would benefit by substantial downtown redevelopment. The community seeks to attract oil and gas service firms.

Fairview's development will continue to be based primarily on agricultural service and Fairview College. In the long-term, College expansion will be the driving force behind economic expansion in the community.

Manning has the potential to develop on the firm base of oil and gas exploration and development, forestry development, agricultural expansion and services to these industries.

5. **Summary**

All centres will continue to grow and develop on a diversified economic base. However, government's presence in these communities is important to the local economies and stabilizes the impact of cyclical fluctuations in the resource sectors.

Region Three: Remote Communities of Central Northern Alberta

1. **Introduction**

Region three includes the remote communities of Sandy Lake, Wabasca, Desmarais, Trout Lake, Peerless Lake, Red Earth, Loon Lake, Chipewyan Lake, Little Buffalo Lake, Cadotte Lake, Atikameg, and Gift Lake. These communities' populations range from 50 (Atikameg) to about 1,700 (Wabasca/ Desmarais). They have limited servicing and serve as community centres for the Metis settlements and Indian reserves. There is major conventional oil exploration underway in the area; there is also potential for oil sands/heavy oil development. These communities now provide little or no services to the oil and gas industry, and some often have unemployment rates in the order of 80 per cent.

2. **Goals and Objectives**

Road and other transportation improvements into these remote communities have impacted traditional lifestyles. Residents must now decide how much they wish to become part of the modern world and then seek means to pursue economic development.

Key goals for regional economic development centre around the establishment of basic permanent employment for residents while still retaining traditional lifestyles. Employment opportunities exist with the 70 to 80 companies engaged in oil and gas exploration and development and/or through the establishment of native businesses which can participate in servicing this work. There is considerable interest in training programs to develop technical skills (related to the oil and gas industry) and simple business management skills.

Other goals for economic development include further road construction, resolution of trap line and commercial fishing issues, and assistance in establishing local businesses.

3. **Key Growth Constraints**

A major constraint to economic development is the inability of local residents to access employment/and business opportunities with the major resource development companies active in the area. This problem stems from such factors as poor training, inadequate communications, low awareness of resource development activity, lack of leadership, and the absence of a local economic development assistance to co-ordinate skills with employment opportunities. Contracts for services in resource development are often too large for small contractors to handle.

The population base in nearly all communities is too small to support much retail trade. Inadequate infrastructure development poses a significant constraint to population growth and economic development. Most communities have populations of fewer than 300 and many lack water treatment, sewer, waste disposal and natural gas services.

Road access and upgrading represent significant constraints. Some of the communities do not have dependable all-weather road links to major population centres.

A major source of disposable income of residents in this region comes from transfer payments from the federal and provincial governments.

The availability of seed capital for business development is limited and traditional lending sources seem reluctant to participate in ventures in the region.

4. **Key Economic Development Opportunities**

The boom resulting from exploration for oil and gas in the region has created economic development opportunities directly or indirectly linked to this sector.

As many as 100 rigs and 21 seismic crews were working in the region during the winter of 1984/85. There has been extensive drilling activity in the Senex field near Red Earth and at least two new fields (Sawn Lake and Panny) have been discovered in the last two years. Further exploration is planned for Tall Creek, Owl Creek, Wabasca, Loon Lake, Peerless Lake, Sawn Lake and Panny. Exploration and development of these fields will result in some small scale spin-off business which local communities may be able to exploit. Some specific opportunities might include solid waste pickup and management, pump jack assembly, welding, yard lighting, slashing, fencing, food and accommodation, washing, cleaning and contract labor supply. The market needs these services and there is a fairly good long-term outlook for most of them.

Indirectly linked to oil and gas activity are opportunities for a hotel/motel at Wabasca, expansion of hotel facilities at Red Earth, further development of such basic public services as community recreation and health care facilities, and selected retail/and commercial services.

5. **Summary**

Economic development of this region will occur primarily with oil and gas development. This development could provide opportunities for remote communities but ways must be found to overcome the difficult problems associated with accessing these opportunities.

Region Four: Grande Prairie Area

1. **Introduction**

This region deals with the communities of Grande Prairie, Wembley, Beaverlodge, Hythe, Sexsmith, Woking, Spirit River, Rycroft, Wanham and surrounding areas.

The region is blessed with many natural resources including agriculture, forestry, and oil and gas. Development of the region has been based largely on the exploitation of these resources. The area has a strong agricultural resource base and this is a stabilizing force in the development of the regional economy.

There are approximately 2,000 farms in the region. The production of grains and oilseeds dominate the agricultural economy.

The City of Grande Prairie, with a population of some 24,400, serves as the regional centre for a trading area with a population base of approximately 80,000. The city acts as a service centre for the northwest and has much of the infrastructure to carry out this role including a regional college, a regional hospital, and a well-developed retail sector.

The area possesses significant oil and gas reserves and the potential for additional exploration and development is high. The Elmworth Basin located some 20 km west of Beaverlodge now constitutes a significant portion of Canada's natural gas reserves. The sharp curtailment of oil and gas exploration and development during 1981-1983 resulted in significant economic hardship to the area but activity is now rebounding. The predicted depletion of the U.S. "gas bubble" should favor increased gas exploration and development.

Reserves of both hardwood and softwood forests are located east and south of Grande Prairie. Canadian Forest Products operates a large sawmill for the production of dimension lumber, and Proctor and Gamble's bleached kraft pulp mill is the largest single source of employment in the Grande Prairie area. Economically operable reserves of hardwood represent both a tremendous opportunity and challenge. The available volume is only a fraction of the current harvest. Exploitation depends upon the development of new processes and uses for aspen.

2. **Goals and Objectives**

In developing the list of goals and priorities for the region, we have drawn upon the input received during our interviews. The development goals emphasize the desire of residents for a more stabilized growth pattern. The goals include:

- capitalization on oil and gas activities while ensuring that this is done in a conservative manner so as to avoid boom and bust cycles,
- the development of local attractions to encourage tourism in smaller centres,
- a more aggressive approach toward securing convention and meeting business as a means to developing tourism for Grande Prairie,
- broadened retail and service sectors in all communities in the region so that residents can shop locally. For Grande Prairie, further development of retail and commercial businesses, downtown redevelopment, and reinforcement of its position as the regional shopping area, and
- increased secondary processing of natural resources, particularly agricultural, within the area.

Grande Prairie has had a formal economic development organization for many years. Many of the smaller communities are now beginning to put economic development organizations in place. This should assist in the achievement of economic development objectives.

3. **Key Growth Constraints**

The principal constraints to the region's development typify the developmental difficulties inherent in a resource-based economy located far from its major markets.

Agricultural commodity prices, dictated by world markets, have held down farmers' profits. Constantly rising costs of farming have squeezed profits. Additionally, the distance to major markets and the strengths of established distribution and marketing systems inhibit local processing.

In some parts of the region water erosion and drainage present significant problems to individual farmers and the rural municipalities.

The development of forestry potential is restricted by current competitive North American market conditions for construction-grade lumber. Problems have also been encountered in developing uses and markets for aspen.

Oil and gas are subject to cyclical fluctuations as a result of world prices and changes in government policy. People in the region are not fully aware of the opportunities that arise from

oil and gas development or how to capitalize on them.

4. **Key Economic Development Opportunities**

   A number of economic development opportunities were identified for each of the key resource sectors. Broadening and strengthening of the retail/commercial base, exploitation of tourism, and further enhancement of infrastructure are also areas of opportunities.

   In agriculture, opportunities for significant increases in grain production were identified. Cow-calf operations, though not as profitable as those in the south owing to winter feeding requirements, can be expanded through community pasturing and increased use of forage resources.

   Several opportunities for the expansion of agri-business and agricultural processing were also identified. These include processing Saskatoon berries at Hythe, expansion of the Federal Agricultural Research Centre at Beaverlodge, installation of a bulk fertilizer plant at Beaverlodge and expansion of Cargill's facilities, establishment of market greenhouse operations, replacement of the burnt-out honey processing plant in Spirit River and modernization of the Central Peace Seed Cleaning Plant. Recent agreements with the provincial government ensure the continued operation of the canola crushing plant in Sexsmith for at least 18 months. Additional opportunities are also being aggressively pursued by local entrepreneurs and businessmen.

   A large number of opportunities were identified for the forestry and pulp and paper sectors. Considerable activity is currently underway to determine further uses for the extensive aspen resources of the region — Canadian Forest Products announced a $7 million research centre and pilot operation in order to develop a market for aspen furniture; aspen is now used with apparent success by Proctor and Gamble to partially replace softwood in its bleached kraft pulping operation; the construction of a bleached CTMP (chemi-thermal mechanical pulp mill) based on softwood or 50 per cent aspen and 50 per cent spruce would appear economically viable. The use of aspen in pulping seems to offer the best use of hardwood resources in northern Alberta.

   A number of projects in the oil and gas industry are set for the next five years. Significant benefits can be realized if communities establish close communication with the industry and exert pressure to ensure local benefits.

   Tourism is a priority in Grande Prairie and in most smaller communities. Opportunities identified include increasing convention and meeting business in Grande Prairie, developing additional tourist attractions such as the Dunvegan and Kakwa areas, and providing additional campsites.

   Most smaller communities have identified the need to improve and broaden their retail services in order to reduce loss of trade to other communities and to promote local shopping. Grande Prairie, the first community to obtain business redevelopment zone legislation, is pursuing the promotion and upgrading of the downtown core. A variety of plans have been developed for construction of a 350,000 ft.^{2} mall. An expansion on the order of $35 to $50 million, is planned for Grande Prairie Regional College over the next ten years. Funds have now been approved for an alcoholism treatment centre in Grande Prairie. Needs have been identified for a new post office, additional medical staff, improved native education and housing, and for a nursing home and chronic care hospital in Spirit River or Rycroft.

5. **Summary**

   The economic development outlook for Region Four is extremely bright because of the turnaround in the oil and gas industry, the exciting possibilities for aspen resources and the sophistication with which retail, service industry, tourism, and agricultural processing opportunities are being pursued. Agriculture will remain an important factor in the rural economy and will provide stable and continued growth.

Region Five: Slave Lake Area, High Prairie Area, Smoky River/ Valleyview Area

1. **Introduction**

   Region Five is divided into three subregions. The first focuses on the Slave Lake area. The second is centred in High Prairie and includes the communities of Big Prairie, Grouard, Faust and Kinuso. The third subregion covers Valleyview and the communities within the MD of Smoky River.

2. **The Slave Lake Area**

   Slave Lake has developed as a service centre for resource development industries. The community provides a range of basic oil and gas services, has several major industries involved in forestry, and provides regional provincial government services. The diversity of the economy has helped Slave Lake avoid many of the impacts of the recession. The area has a number of underdeveloped resources (e.g., tourism/recreation) to support further economic development.

   Although economic development goals for the Slave Lake region have not been clearly defined, the current local idea is to shift from dependence on non-renewable resources to such other industries as forestry and tourism. Short term goals include:

   - taking full advantage of benefits arising from oil and gas activity in the Red Earth region,

- upgrading of Highway 67,
- encouraging modest expansion of the retail sector, and
- attracting development of rental accommodation to overcome a zero vacancy problem.

In the last two years, Slave Lake has prospered and little interest has been shown in promoting additional local investment. Some residents feel that the community lacks a "welcome mat" for attracting new business investment. Retail expansion has been hampered by high rents for new commercial space; further expansion of the lumbering and panel board industries has been restricted by soft housing markets and uncertain timber supply, specifically suitable aspen resources to support the Weldwood Plant.

The opportunities in the region are in the expansion of the oil and gas servicing base, development of tourism/recreation facilities and programs, expansion of the retail sector, provision of rental accommodations and long term development of a thermal mechanical pulp operation.

- The current and proposed activity in the Red Earth area indicates a significant market demand for basic oil and gas servicing. Several pilot tar sands projects represent additional business opportunities.
- Slave Lake is within two hours of Edmonton and is well-situated to capitalize upon tourism development if improved tourism facilities and programs can be provided.
- Slave Lake can probably support an expanded retail sector because of a steady population growth, higher receipts per capita than other communities, and fewer retail outlets per capita than towns of similar size.
- Slave Lake has a current zero vacancy rate and most hotels are fully booked. Modest development of low-cost rental accommodation appears feasible.
- Modern technologies and research suggest that aspen pulp is both a desirable and practical paper base for chemi-thermal mechanical production. The market outlook is favorable and the Slave Lake area has reserves of suitable aspen for pulp production.

3. **High Prairie Area**

The High Prairie region bordering the west end of Lesser Slave Lake has well-established farms and the community of High Prairie is the recognized agricultural service centre. Because of its geographical location, the community is well-positioned to benefit from tourism development, some oil and gas servicing, dimension lumber production and service to neighboring Indian reserves and Metis settlements. The High Prairie Regional Economic Development Board provides the region with a focus for economic development activities.

Specific priorities for development in the High Prairie region include:

- paving of Highways 747 and 750,
- developing Lesser Slave Lake as a tourism/recreational resource, and
- securing additional agricultural and retail services.

Communities in the High Prairie region have evolved to serve local native settlements and a well-established agricultural sector. As a result, although the communities have enjoyed stable business activity, there are few opportunities for significant growth and limited local industry to support jobs.

The desire to encourage development along Lesser Slave Lake is hampered by the absence of integrated resource plans governing lake use and the probable high cost of infrastructure.

On a small scale, High Prairie can service exploration and drilling activity in the Red Earth region. High Prairie also has the potential for further hotel/motel development and general improvement of the hospitality sector. There is a need for town beautification, and possibly, requirements for additional agricultural supply and implement dealers. Long-term development opportunities are likely in the area of business and commercial development along Lesser Slave Lake.

4. **Smoky River/Valleyview Area**

The Smoky River/Valleyview subregion includes the communities of Falher, McLennan, Donnelly, Girouxville and Valleyview. The region covers the municipal district of Smoky River #130, and Valleyview and area. The communities within Municipal District #130 are members of the Smoky River Regional Economic Development Board.

The goals for economic development include the attraction of additional agricultural servicing and processing industries (fertilizer production, grain elevator facilities), maintenance and improvement of existing businesses, and the identification of opportunities for the winter employment of farmers.

The Smoky River District is also a long-established agricultural region. Farm consolidations have hampered further agricultural service sector development. Limited local market potential, prohibitive equipment costs and significant distance to larger markets have precluded most secondary processing for the region's extensive honey production. The community of Valleyview lacks rail services and grain elevators. Therefore, other agriculture-related service industries generally have not located there. Further agriculture development is hindered by the long haulage distances to elevators. Present grain freight rate structures do not allow

subsidies of second elevation costs to cover off-track elevator systems. Valleyview has a small, but established oil and gas service sector.

In the Smoky River/Valleyview area, there appear to be modest opportunities for retail sector expansion, enhancements to agricultural production and servicing, long term development of some secondary honey processing, and, establishment of off-track elevator facilities to handle grain produced near Valleyview.

5. **Summary**

Region Five is representative of the economic diversity in northern Alberta. The Slave Lake area is in aggressive pursuit of oil and gas development in the Red Earth region. In the long term, the community of Slave Lake would like to see further diversification of its economic base into forestry and tourism. High Prairie supports some forestry and oil and gas activity but its dominant focus has been as a service centre for agriculture and the nearby Indian and Metis settlements. The outlook for High Prairie is for a fairly stable population with some long term development prospects along Lesser Slave Lake.

The Smoky River District has a number of small scale opportunities that exist to improve and expand businesses. Some secondary processing/packaging may eventually develop to support the honey industry.

In the Valleyview area, the construction of grain elevator facilities could significantly promote business development.

Region Six: Grande Cache Area

1. **Introduction**

This region within the NADC area deals primarily with the community of Grande Cache. This community was originally established to accommodate the employees of McIntyre Mines Limited (now Smoky River Coal Limited). From 1969 to 1972, Grande Cache enjoyed a normal rate of growth for a new community. As early as 1973, however, Smoky River Coal experienced serious difficulties maintaining contracts for coal and the business community has had difficulty in maintaining stability ever since.

The economy of Grande Cache has been aided in recent years by the establishment, in 1980, of the British Columbia Forest Products dimension sawmill, and, more recently, by the construction of a provincial correctional centre within the town.

Grande Cache is a clean, fully-serviced community designed to accommodate a population of approximately 5,000 (current population 3,300). The community has a modern 34-bed hospital, a large coal-fired generating station to serve the coal mine as well as the town, an attractive provincial building, an artificial ice arena/and recreation complex, an indoor swimming pool, numerous parks and a recently constructed golf course.

2. **Goals and Objectives**

In late 1980, the population of the community grew to some 5,000 and a full range of municipal services, infrastructure and business development was put in place to accommodate that population level. Downturns in coal exports in the early 1980s led to a loss of some 1,200 jobs within the community and a subsequent population decrease to about 3,300. The community's goals and priorities are to reduce dependence on coal and to solve some of the problems related to unemployment and underutilized local facilities and services. A review of previous studies, together with recent discussions with community residents, revealed local priorities as follows:

- reduce dependence on coal mining and seek further economic diversification,
- work closely with the new correctional centre to make the most of local business spin-off opportunities,
- develop a plan and programs to receive full benefit from construction of Highway 40,
- develop programs to upgrade local recreation facilities and attract tourists, and
- develop and improve the community's economic development function.

The Grande Cache town administration and business community have demonstrated the capacity to work together and to be aggressive in pursuing opportunities.

3. **Key Growth Constraints**

The cyclical nature of the coal and lumber industries has produced wide swings in the town's economy. The town is unable to influence the international markets upon which these industries depend. While the recent addition of the 250-bed correctional centre will moderate the impact of these international markets, the fortunes of the community will remain largely linked to world prices and trade. The "boom and bust" nature of the community's economy has also created an unfavorable investment climate and an oversupply of housing.

Another key constraint facing Grande Cache is its isolation from major population centres and highways.

4. **Key Economic Development Opportunities**

The majority of opportunities identified for Grande Cache stem from projects which are either planned or underway (e.g., construction of correctional centre, completion of Highway 40). They include organization and planning to improve local business services, and programs to encourage local investment and/or revenue generation.

In the fall of 1985, the provincial government will complete the correctional centre in Grande Cache. This centre will provide 250 jobs, generate a payroll of $6.4 to $8 million per annum, and provide some limited opportunities for local purchasing. The centre will also provide a labor force and production facility (through the Centre's industry section) to assist with community projects.

An intensive provincial government program to complete Highway 40 to Grande Prairie is underway. This road will complete the Eastern Slopes link between Highway 16 and the Alaska and McKenzie highways. The community is well-positioned to benefit both from construction and future highway traffic. To ensure full benefits from the highway, the town will need to plan and develop suitable tourist attractions and highway facilities and services.

Grande Cache is located in a natural alpine setting with considerable tourist appeal. There are several opportunities to exploit tourism and recreation services both for local residents and for visitors. Strong organization and detailed practical planning and promotion are needed. Enhanced recreation programming, and upgraded facilities including enhanced fish and game stocking, a community based ski facility, and a serviced campground are also necessary.

An opportunity exists to conduct a local business improvement program to retain local spending and to upgrade hospitality services. This program will link closely to maximizing benefits from Highway 40 and also to the improvement of tourism and recreation services.

Many economic development opportunities in Grande Cache will require considerable local organization and planning as well as liaison with a variety of government agencies, private businesses and public interest groups. The establishment of a community economic development board would help fulfill this function.

5. **Summary**

Grande Cache has progressed considerably toward economic diversity in the past five years. The correctional centre and the completion of Highway 40 (including paving) will add to the community's appeal.

Although the town administration and local businesses have displayed a willingness to work together, the community could better capitalize on its economic development potential by forming and funding a strong economic development board.

Region Seven: Fox Creek, Whitecourt and Swan Hills

1. **Introduction**

This region includes the communities of Fox Creek, Whitecourt and Swan Hills. It is heavily influenced by major oil and gas, coal, forestry and tourism/recreation resources.

The region is geographically located near many resources. There are large oil and gas fields in the Swan Hills, Virginia Hills, and near Judy Creek. Extensive coal deposits are suitable for either gasification or for fueling a thermal power station.

This region, situated in the Whitecourt Forest has significant timber resources. The Berland Forest Management Area is one of the largest native timber berths remaining in North America and is suitable for the production of both dimension lumber and pulp.

The region is located in the Whitecourt Forest which provides base resources and facilities for camping, hunting, fishing, cross-country skiing, snowmobiling, off-highway vehicle operation and canoeing. The relative proximity to the Edmonton population is a major positive factor in expansion of tourism and recreational activity.

The region has benefited and will continue to benefit from a number of current industrial projects. These include expansion of the dimension lumber and panel board mills near Whitecourt, increased oil recovery activity in the Judy Creek area and construction of the hazardous waste disposal plant at Swan Hills.

2. **Goals and Objectives**

To a large extent, each of the communities within this region is heavily dependent on oil and gas resources. To offset this dependency each of the communities has expressed some desire for economic diversity. Although the desire is evident, the communities display varying degrees of organization and focus in defining their goals and objectives for economic development.

Whitecourt has formed an economic development board. This board has identified recreation and tourism as its first development priority, forest and wood industry as its second priority, and enhancement of the oil and gas service base as its third priority.

In Fox Creek, about 90 per cent of the population are dependent on the oil and gas industry. There is a clear need for a second industry or other form of economic diversity. In response to this need, the community is now organizing an economic development strategy.

The economic development plan prepared by the town of Swan Hills includes the following goals:

- pursuit of moderate, sustained growth,
- strengthening of the retail/commercial sector,
- diversification of the industrial base,
- enhancement of local infrastructure, particularly in education and professional services.

3. **Key Growth Constraints**

There are several restrictions to development which are common to the communities in the region.

These communities all have wage-based economies dependent on resource development. Although incomes are relatively high there is a low economic multiplier effect to support local business development.

In recent years soft markets for forestry products and poor prices for oil and gas have caused business slowdowns in each of the communities, and, in many cases, there has been a decrease or stagnation in population growth.

In both Swan Hills and Fox Creek there is little local ownership of housing because homes are provided by the oil and gas companies. Although company housing has increased the population of the towns it has contributed to an absence of community roots, subsequent lack of pride in the community and little equity investment in the towns' futures. The high percentage of company owned housing also discourages private home construction. In all these communities, the population base has not reached the level necessary to support most chain stores or specialized businesses.

4. **Key Economic Development Opportunities**

This region has just started to experience the effects of enhanced oil recovery programs at the Judy Creek A, Judy Creek B and Swan Hills fields. The operators of these fields (Esso, Home Oil, Amoco) will invest hundreds of millions of dollars in the program over the next five to ten years and Swan Hills and Whitecourt are well-positioned to take advantage of some of this expenditure, particularly from spin-off businesses.

In Fox Creek and Swan Hills, housing is largely provided by the oil and gas companies. The encouragement of more local home ownership would have favorable benefits.

Within the region, there is an opportunity to improve local tourism, recreation and entertainment facilities. While it will be beneficial to attract out-of-region tourists, there is also a need to increase resident participation in local recreation. Possibilities include further development of hiking trails, fish stocking of lakes, expansion of campsites, winter use of campsites, and development of full-service campgrounds.

The Whitecourt Forest (Berland Forest Management Area) should eventually support development of a new dimension mill (possibly near Fox Creek) and a bleached chemi-thermal mechanical pulp mill (likely at Whitecourt). Much of the planning and infrastructure development to support these industries is already in place.

Of more immediate interest to the communities are the fibre board plant construction at Whitecourt, the Miller Western expansion at Whitecourt, the special waste plant construction for Swan Hills, and the extensive enhanced oil recovery programs underway near Judy Creek.

5. **Summary**

Each community within Region Seven has the potential to benefit from further development of natural resources. Ideally, each could profit from building on its resource base and seeking economic diversity to reduce dependency on international oil, gas and lumber prices. Although the resources are available and the need for diversity is evident, the communities reflect varying degrees of organization and effort in defining and pursuing their economic development goals and objectives.

In the short term the community of Whitecourt will benefit from expansion of its forest industries, and, given time, the community's economic development board could attract additional investment to the town.

Swan Hills has a detailed economic development plan and through recent community efforts, has been able to attract a special waste facility which will provide 30-50 permanent jobs.

In contrast to Swan Hills and Whitecourt, Fox Creek continues to depend on oil and gas. Although the town is initiating an economic development program, the future for diversification and/or growth is uncertain.

Region Eight: Fort McMurray Area, Fort Chipewyan Area

1. **Fort McMurray Area**

Region Eight is composed of the areas of Fort McMurray, Fort McKay, Anzac, and Fort Chipewyan. Fort McMurray, the dominant centre, developed because of exploitation by Suncor and Syncrude of nearby mineable tarsands. At first there were few services, and, inhabitated mainly by construction workers, the town suffered from the ills associated with a construction camp environment. However, Fort McMurray has matured and is now settled by a young, permanently-established, dynamic population. The city provides a full range of educational facilities (including a college with a comprehensive program), health and welfare services, and recreation facilities. The city suffered little in the recession and is poised for rapid growth.

2. **Goals and Objectives**

Fort McMurray is well-equipped to service a larger population of 65,000. In fact significant growth would take advantage of the infrastructure already established and ease the tax burden. Economic development goals:

- accelerated growth to take advantage of oil-sands and heavy oil potential; jobs for the large numbers who will enter the labor force
- broadening of the economic base through expanded manufacturing, service, tourism

and retail sectors

- transportation links to other centres, improvement of Highway 63 from Edmonton, by way of a resource road to Wabasca, and through roads north to Fort Chipewyan and east to the Saskatchewan Lakes at LaLoche
- improved road connections to Lac La Biche
- image enhancement; strengthened facilities to allow the city to reach its potential of regional centre for resource development
- development of tourism and meetings/ convention potential
- broadened commercial and retail service base for Anzac through a plan for economic development and improved transportation links to Fort McMurray.

3. **Key Growth Constraints**

It is clear that Fort McMurray will experience rapid growth through further exploitation of mineable tarsands and commercialization of heavy oil products. Possible constraints are a downward slide in oil prices or inability of developers and government to establish necessary fiscal and royalty regimes.

It appears that growth will concentrate largely on the tarsands and heavy oil sectors, and growth of other industries will be held back because of other factors. The trading area which Fort McMurray can service is relatively small encompassing only about 40,000 people; inadequate transportation links curtail the growth of tourism and distances from major markets limit the ability of the service and manufacturing industries to expand.

4. **Key Economic Development Opportunities**

The most significant economic development opportunities centre around expanded tarsands operations and further development and commercialization of heavy oil in situ projects. However, opportunities for tourism, retail service, and manufacturing were identified.

The tarsands have immense potential for further development. Syncrude is now undertaking a $1.2 billion expansion, Suncor plans to spend $500 million over the next five years, and AOSTRA will spend $100 million to develop an experimental pilot project to prove the feasibility of developing deeper tar sands resources.

Most significantly, Canstar Ltd. is studying the practicality of a $3.5 to $5.0 billion tar sands facility employing approximately 6,000 people. A third plant or expansion of similar size by an existing operator is another possibility.

An important number of in situ pilot plants for heavy oil are being established. The further development of these into full commercial ventures depends on their performance, the maintenance of current prices for oil, and an appropriate fiscal and royalty course. Spin-off opportunities directly related to tar sands development are being evaluated. These include the feasibility of extracting vanadium and titanium from tar sand tailings, construction of a shuttle train service from Fort McMurray to the plants, development of a hydrophonic vegetable greenhouse, and a greenhouse operation in conjunction with tarsands lands reclamation using waste heat.

Projects being pursued for tourism development include development of packages to promote additional fly-in fishing and big game hunting, encouragement of a commercial riverboat service, whitewater rafting, additional campgrounds, exploitation of the tourism potential of the tarsands, and promotion of the city for meetings and conventions.

The small manufacturing and service industry sector to service tarsands and heavy oil projects appears to have potential to do additional work for tarsands operators. This conclusion is based on the fact that the two projects have not systematically examined purchasing requirements to provide smaller bids or components that local manufacturers could fill. Further opportunities to expand the oil and gas service sector exist provided a resource road is built west to Wabasca. Expansion of the tarsands operation will create even more opportunities to broaden the retail base in Fort McMurray and to redevelop the downtown core.

5. **Summary**

Rapid growth is projected for Fort McMurray because of further exploitation of the mineable tarsands and the commercialization of heavy oil. This will allow the city to broaden its retail sector; to expand the college, and the recreational, social and health services. Diversification of the economy will be difficult and further development of the manufacturing and service sector will require creativity and an increased spin-off from tarsands operators.

6. **Fort Chipewyan**

7. **Goals and Objectives**

- to secure an all-weather road link connecting Fort Chipewyan to Fort Smith and Fort Vermilion or, alternatively, to Fort McMurray.
- to significantly enhance the tourist industry in the area
- to upgrade and expand the service industry in the community
- to expand the commercial fishery by reducing costs of transportation, thereby allowing fishermen access to lower quality fish

8. **Key Economic Development Opportunities**

The most significant near-term economic development potential in Fort Chipewyan is the expansion of the tourist industry. The community is in a unique natural setting and offers the visitor many recreational opportunities including access to Wood Buffalo National Park. The community is actively pursuing developments to address this opportunity.

Other opportunities which can be developed in the near future, if an all-weather road is constructed, include the expansion of the commercial fishery to include lesser quality fish and expansion of the local service industry. Fort Chipewyan also boasts a high quantity of red granite which may be exploited.

Fort Chipewyan, Alberta's older community, has a small but aggressive population which continually strives to improve the quality of life.

Region Nine: Lac La Biche and Athabasca

1. **Introduction**

Region Nine includes two subregions: Lac La Biche and Athabasca.

The Lac La Biche region encompasses the eastern half of the region. The region has aggressively pursued economic development for over ten years and has achieved impressive results, partly because of the strong economic development organization and partly because of the diversity of resources in the region.

The Athabasca region extends east to Grassland, north to Calling Lake, south to Rochester and west to a point close to Smith. The community of Athabasca is a well established centre in a beautiful setting in the Athabasca River valley. The community has developed as an agricultural service centre. More recently it has been the site of some oil and gas service industries and is the permanent location for Athabasca University.

2. **Goals and Objectives**

The Lac La Biche area has defined goals and objectives which are aggressively pursued by the Lac La Biche Regional Economic Development Council. The region wishes to maintain steady growth based on its resource potential in tourism, oil and gas exploration and development, and as a transportation, government, and agricultural centre. A key objective is to gain an all-weather road link to the Conklin area to access heavy oil development.

The goals of the community of Athabasca are less well-defined. The county wishes to attract a major industry to expand the tax base and provide employment; the town exhibits a desire to continue to grow based on its traditional agricultural service sector and the expansion of Athabasca University.

3. **Key Growth Constraints**

A major constraint to development in Lac La Biche appears to be the lack of an all-weather Conklin road. Other drawbacks relate to the paving of Highway 36 and the upgrading of required resource road linkages. The people view the absence of a major government tourism policy in the Lakeland area as a significant restriction.

Athabasca experiences a degree of restraint because of its river valley setting and the finite boundaries which this places on physical growth and development. The community has a significant retail loss because of its proximity to Edmonton and because many essential agricultural services are based in Westlock.

4. **Economic Development Opportunities**

There are many economic development opportunities in both communities. Both communities demonstrate interest in tourism development and possess the natural and historical bases necessary to capitalize on that industry provided action plans can be developed in concert with government. Both communities can sustain more and diversified retail businesses, and the Lac La Biche community has identified several which appear to be feasible.

Other opportunities in Lac La Biche include the expansion of the oil and gas service base and the attraction of heavy oil development firms. Lac La Biche is also developing new approaches to upgrading commercial fishing, wild rice harvesting and an expanded exotic game ranch concept.

Athabasca's key opportunities currently rest with expansion in the retail sector and with the development of industry to service the university. Food processing facilities could also feasibly be developed in Athabasca.

5. **Summary**

While neither community is a high growth centre, both exhibit the potential to grow and expand on a firm service-base economy. Key to future economic growth is a high quality economic development organization.

Region Ten: Cold Lake, Grand Centre and Bonnyville

1. **Introduction**

Region Ten encompasses the communities of Cold Lake, Grand Centre and Bonnyville in northeastern Alberta. The region is presently one of the strongest economic growth areas in the province as a result of heavy oil developments and the expansion of Canadian Forces Base Cold Lake. The area experienced a period of high growth and development in the late 1970s predicated on the assumption that Imperial Oil's major in situ heavy oil extraction facility would be developed. After the cancellation of the project, local economies rapidly diminished and many local residents and outsiders suffered major financial losses mainly in the field of speculative real estate. The ensuing recovery which is now evident is being greeted with cautious optimism. The recent boom and bust cycle is fresh in the minds of residents and is a critical factor in the present economic life.

The current level of growth will be sustained over a period of years. Residents will be presented with opportunities and in time capitalize on them. This steady pace is preferable to the recent boom times.

2. **Goals and Objectives**

The people of the region wish to expand the economic well-being of their communities

based on the development of heavy oil and the expansion of CFB Cold Lake. Residents do not wish to return to the boom period of the late 1970s but wish to experience moderate and sustained growth.

There is a desire to exploit the vast tourism potential of the area in both the Lakeland area and in Cold Lake itself. Residents see a need for better lake management techniques to ensure the preservation of the resource and its sport fish.

The residents desire a high order shopping facility and many want a regional shopping centre at either Grand Centre or Bonnyville.

Some infrastructure requirements related to road development and housing construction are also desired.

3. **Key Growth Constraints**

There are few constraints to development in this vibrant area. Key problems, however, include difficulty in securing financing insurance to construct single or multiple family houses and some reticence to invest in opportunities, caused by severe problems created by the recession.

Grand Centre's business district requires revitalization. In all three communities, local businesses are having difficulty competing with outside firms, resulting in the loss of many firms.

4. **Economic Development Opportunities**

Given current world prices the growth in the region represents a number of opportunities in each community. In Bonnyville, there is a good potential for more commercial, industrial and residential accommodation to service the rapidly expanding heavy oil service industry. There is also potential to develop the tourism concept of Bonnyville as gateway to the Lakeland Region.

Cold Lake can accommodate a larger retail sector and this will apparently be exploited in the near future. Cold Lake holds great potential for viable marina operation and for a full facility resort hotel.

Grand Centre, as the trading centre of the area, could accommodate new and higher order retail services. It could also benefit through liaison with CFB Cold Lake for local purchasing contracts.

Several ideas were suggested to increase tourism including the following: extensively promoting the "Lakeland" theme, establishment of a heavy oil interpretative centre, exploitation of historical sites, and the development of package tours to the region.

5. **Summary**

All three communities in the region exhibit strong growth potential. The recession and its consequences serve to allow the outside investor to take advantage of this.

Region Eleven: St. Paul and Elk Point

1. **Introduction**

The communities of St. Paul and Elk Point have historically developed on a firm agricultural base and have been stable growth centres. The recent heavy oil developments in the Lindbergh field east of Elk Point have transformed the traditional economic base of that community and significantly accelerated its growth rate. St. Paul continues to serve the agricultural sector and maintains an important role as the government service centre for the region.

2. **Goals and Objectives**

The people of St. Paul wish to maintain the steady growth rate with economic improvements integrated into the commercial fabric as the need arises and investment occurs. There is a heavy emphasis in this community on the maintenance of the key components of quality of life.

The people of Elk Point have mixed reactions to growth in their community. They wish to make the most of potential benefits of heavy oil development while keeping negative impacts on the community low.

Both communities indicate a desire for the development of a tourism industry.

3. **Key Growth Constraints**

There are several constraints to development in both communities. In St. Paul, the traditional development of the commercial sector along the highway is viewed as detracting from the centralized development of a strong commercial core. St. Paul is also located off major transportation routes to resource communities.

Growth in Elk Point is held back by the concentration of heavy oil service firms in other locations that service the Lindbergh field. As well its agricultural service sector is in decline because of the centralization of farm services in other communities.

4. **Key Economic Development Opportunities**

There are a number of opportunities evident in each centre. Both are ideal locations for new retail outlets as well as agricultural service facilities.

It appears St. Paul could significantly increase its tourism potential by developing a full-service motor hotel with modern meeting room facilities.

Elk Point should be able to increase its growth through a concentrated effort to attract heavy oil service industries.

Both communities have a rich historical heritage which could be capitalized on for

major tourism development. However, this will require concentrated effort shared by the communities and the provincial and federal governments.

5. **Summary**

Both St. Paul and Elk Point are stable centres which will continue to grow and develop at a steady rate. They could better capitalize on their economic development potential by forming a strong economic development organization.

Conclusions

This report has been prepared as a summary of economic development issues and opportunities in northern Alberta. It is based on extensive interviews, seminars and community workshops with more than 250 business, industry, community and government representatives.

The principal findings of the study include:

- The resource base of northern Alberta, particularly oil and gas, will continue to drive the northern economy. It offers very significant potential for growth and development of the northern economy.
- Northern residents are seeking long term economic stability for their region; they are looking for economic diversification, opportunities to encourage young people to stay in northern Alberta, and for the means to play a greater role in and take advantage of the development of resources.
- The North is an expanding, developing area. There continues to be a basic requirement for road construction and upgrading as a lever for development. Several areas also need additional housing, municipal servicing and improved health care.
- The agricultural sector has a continuing role to play in economic development. There are needs for agricultural intensification, improvements in farm productivity and the continued use of cost shelter programs (e.g., fertilizer, fuel). There is an ongoing demand for further land development. Part-time employment off the farm will continue to play a needed role as long as the economies of agriculture remain at current levels.
- The effects of the recent recession still exist. This is shown by a cautious approach to investment related to resource development spin-offs on the part of many local investors.
- There is increased interest in organized economic development programs in most communities. This too appears to have been a result of the economic downturn. At the same time, there is a lack of awareness of the best way to promote economic development.
- In many communities there is substantial interest in improving the rate of local hiring and purchasing, particularly by resource companies. Improved communications between local businesses and resource developers appears to be the key to achieving these.
- Nearly every community in northern Alberta saw some potential for increasing tourism activity in its region. Effective planning, program development and promotion are required. Many opportunities are local and small scale. Major tourism developments will require a co-operative effort between government and business.
- There are retail/commercial opportunities in virtually every northern community. "Hands on" entrepreneurship is required. Businesses must become more sensitive to local business cycles.
- The forest resource has potential for further expansion as prices and markets improve. The hardwood (aspen) resource of northern Alberta is almost completely untapped. Development of the forest resource will likely require government assistance tailored to meet the requirements of specific projects.
- Northern Alberta's water resources will play an increased role in supporting tourism, industrial development and commercial fishing. Effective water management policies are required. There is long term potential for many hydro-electric sites.
- The fish and wildlife resource in northern Alberta has an uncertain role to play in future economic development. There are many conflicting priorities between commercial and recreation based activities; trapping can be maintained or increased but only if other development does not encroach.

Appendix I

Approach for Screening Economic Development Opportunities

A. Purpose of Screening Process: To focus thinking and to secure agreement as to what economic development priorities in northern Alberta should be. The screening process represents a rough measure aimed at identifying key areas. The process is not intended as a precise tool.

B. Method: Each potential economic development opportunity was evaluated along two dimensions:

1. relative *attractiveness* of opporunity to region, and
2. relative *ability* of region to take advantage of opportunity.

A "high", "medium", "low" ranking scale was used to measure each dimension. The decision to rank an opportunity as "high", "medium" or "low" along each dimension was based on the definitions and checklists below.

Attractiveness of Opportunity: The attractiveness of an opportunity is a composite measure reflecting one or more of the following criteria:

- capital surplus (profit) formation potential
- local control of capital
- enhancement of local control of decisions
- timing of investment
- ratio of local to outside investment
- project risk
- economy of scale of project
- cultural fit
- link to local institutions
- ability to employ women
- number of jobs created
- production versus service focus
- community need

Ability to Take Advantage of Opportunity: This variable reflects a community's or region's ability to take advantage of an economic development opportunity or project. It includes one or more of the following criteria:

- availability of local capital
- ability to access capital (money)
- availability of technology
- availability of markets
- availability of management and suitably skilled labor force
- availability of necessary infrastructure
- community desirability

C. Summary of Opportunities: After all opportunities for a region were assessed using the "attractiveness" and "ability" measures they were summarized in table form. An example is presented below. (Note: The opportunities are not directly comparable with one another.)

Summary of Economic Development Opportunities

Attractiveness of Opportunity	Ability to Take Advantage of Opportunity: High	Medium	Low
High	Secure government service	Open school	Coal mine
Medium	Build bridge	Car dealership	
Low			

Appendix II

Population and Growth Rates by Census Division (CD) — 1976-1982

	Population			Annual Growth Rates (%)	
	1976	1981	1982	1976-81	1981-82
CD 12	63,130	84,225	86,690	5.94	2.93
CD 13*	46,300	53,690	54,670	3.01	1.83
CD 15	105,015	128,645	130,610	3.75	1.53
Total	214,445	266,560	271,970	4.50	2.0
Provincial Total	1,838,075	2,237,720	2,322,310	4.01	3.78

* Only part of CD 13 is within the NADC area.

Population Projections* Census Divisions (CD) 12, 13, 15 and Alberta, 1984-1998 (in thousands)

	1985	1990	1995	Annual Percentage Growth Rate 1985-1995
Projection Series A				
CD 12	93.9	104.3	118.4	
CD 13	56.9	60.1	63.8	
CD 15	139.2	149.8	159.1	
Total	290.0	314.2	341.3	1.63
Alberta	2,731.8	2,545.3	2,755.5	0.08
Projection Series B				
CD 12	93.8	105.0	119.7	
CD 13	57.0	60.3	64.2	
CD 15	139.9	150.7	159.7	
Total	290.7	316.0	343.6	1.75
Alberta	2,386.8	2,578.0	2,801.7	1.63
Projection Series C				
CD 12	93.8	105.3	120.2	
CD 13	57.1	60.5	64.4	
CD 15	140.4	151.4	160.3	
Total	291.3	317.2	344.9	1.75
Alberta	2,398.8	2,602.0	2,832.8	1.68

* Summarized from population projections prepared by Alberta Bureau of Statistics, September, 1984.

Note: 1. The reference date is June 1 of each year.

2. The projection series A, B and C reflect low, medium and high assumptions for population migration and fertility.

Population of Cities, Towns, Villages, Counties, Municipal Districts and Improvement Districts in the NADC Area, as of June 30, 1979 and June 30, 1984

	Population 1979	Population 1984	Population Change
Cities, Towns, and Villages			
Fort McMurray	25,802	35,352	+ 9,550
Grande Prairie	20,427	24,411	+ 3,984
Peace River	5,692	6,043	+ 351
Whitecourt	4,758	5,408	+ 650
St. Paul	4,710	4,936	+ 253
Grande Cache	4,423	4,624	+ 201
Slave Lake	3,821	4,838	+ 1,017
Bonnyville	3,699	4,786	+ 1,087
Fairview	3,027	3,234	+ 207
Grand Centre	2,829	3,195	+ 366
Swan Hills	2,553	2,497	− 56
High Prairie	2,281	2,580	+ 299
High Level	2,043	2,806	+ 763
Lac La Biche	1,991	2,242	+ 251
Grimshaw	1,950	2,488	+ 538
Athabasca	1,878	1,862	− 16
Fox Creek	1,811	1,978	+ 167
Valleyview	1,716	2,232	+ 516
Beaverlodge	1,645	1,937	+ 292
Cold Lake	1,585	2,515	+ 930
McLennan	1,212	1,176	− 36
Falher	1,162	1,188	+ 26
Manning	1,140	1,262	+ 122
Sexsmith	1,064	1,192	+ 128
Spirit River	1,020	1,104	+ 84
Elk Point	1,012	1,113	+ 101
Rainbow Lake	806	856	+ 50
Wembley	835	1,209	+ 374
Boyle	612	678	+ 66
Rycroft	538	734	+ 196
Berwyn	521	674	+ 153
Hythe	504	681	+ 177
Hines Creek	503	529	+ 26
Glendon	431	455	+ 24
Nampa	352	435	+ 83
Donnelly	340	382	+ 42
Girouxville	315	325	+ 10
Kinuso	305	285	− 20
Plamondon	236	271	+ 35
Wanham	233	266	+ 33
Eaglesham	229	201	− 28
Fort Assiniboine	182	214	+ 32
Total	**112,193**	**135,221**	
Counties			
Grande Prairie No. 1	9,147	12,078	+ 2,931
Athabasca No. 12	5,406	5,936	+ 530
St. Paul No. 19	5,716	6,352	+ 636
Total	**20,269**	**24,366**	
Municipal Districts			
Bonnyville No. 87	9,837	9,409	− 428
Smoky River No. 130	2,990	2,858	− 132
Spirit River No. 133	857	891	+ 34
Peace River No. 135	1,583	1,520	− 63
Fairview No. 136	1,799	1,889	+ 90
Total	**17,066**	**16,567**	

	Population 1979	Population 1984	Population Change
Improvement Districts			
No. 15	2,214	2,670	+ 456
No. 16	4,561	5,350	+ 789
No. 17	11,209	11,699	+ 490
No. 18	8,669	9,605	+ 936
No. 19	1,816	1,757	– 59
No. 20	2,667	3,000	+ 333
No. 21	2,648	2,979	+ 331
No. 22	3,132	4,250	+ 1,118
No. 23	5,857	5,837	– 20
No. 24	199	188	– 11
Total	**42,972**	**47,335**	
Summer Villages			
Bonnyville Beach	38	60	+ 22
Pelican Narrows	19	52	+ 23
Island Lake	37	81	+ 44
South Baptiste	*	47	+ 47
Island Lake South	*	42	+ 42
Bondiss	*	40	+ 40
Mewatha Beach	15	27	+ 12
Sunset Beach	21	36	+ 15
West Baptiste	*	19	+ 19
Whispering Hills	*	11	+ 11
White Gull	*	18	+ 18
Total	**130**	**433**	

* Denotes that the summer village was not incorporated in 1979.

Notes: 1. Metis Settlements are included in the populations given for ID 17, ID 18, and ID 23.

2. MD 87 Bonnyville includes CFB Cold Lake.

Sources: Cities, Towns, New Towns, and Villages — "Comparative Population: 1975-1979 Inclusive", Alberta Municipal Affairs, Municipal Inspection and Advisory Services Branch.

Counties, Municipal Districts, and Improvement Districts — "Municipal Statistics Including Improvement Districts and Special Areas for the Year Ended December 31, 1978", Alberta Municipal Affairs, Municipal Inspection and Advisory Services Branch.

Resident Population of Metis Settlements in the NADC Area for Selected Years 1978-1985

No.	Name	Population November 1978	Population 84/85 Census	Population Change
1	Keg River (Paddle Prairie)	449	644	+ 195
3W	Big Prairie	253	347	+ 94
3E	Gift Lake	514	552	+ 38
4	East Prairie	287	358	+ 71
7W	Caslan	522	679	+ 157
7E	Kikino	533	671	+ 138
9	Elizabeth	253	416	+ 163
10	Fishing Lake	325	325	0
Total		**3,136**	**3,992**	

Note: The populations of these Metis Settlements are included in the population figures in accompanying tables for ID 17, ID 18, and ID 23.

Source: Metis Development Branch.

Population for Northern Indian Bands as per Ottawa Membership Change Reports of June 30, 1979 and May 31, 1984

	Population 1979	Population 1984	Population Change
Fort McMurray District			
Cree	960	1,064	+ 104
Fort Chipewyan	286	314	+ 28
Fort McKay	200	224	+ 24
Fort McMurray	122	143	+ 21
Janvier	240	265	+ 25
Fort Vermilion District			
Boyer River	320	333	+ 13
Tall Cree	259	385	+ 126
Little River Band	1,394	1,605	+ 211
Dene Tha'	1,268	1,440	+ 172
Lesser Slave Lake			
Horse Lake	149	188	+ 39
Driftpile	652	800	+ 148
Duncan's	53	63	+ 10
Grouard	71	90	+ 19
Lubicon Lake	143	186	+ 43
Sawridge	46	38	− 8
Sturgeon Lake	744	885	+ 141
Sucker Creek	586	704	+ 118
Swan River	197	277	+ 80
Bigstone Creek	1,653	2,073	+ 420
Whitefish Lake	545	699	+ 154
St. Paul District			
Beaver Lake	264	319	+ 55
Saddle Lake	3,452	4,185	+ 733
Cold Lake	1,013	1,077	+ 64
Frog Lake	765	1,003	+ 238
Kehewin	669	902	+ 233
Heart Lake	89	108	+ 19
Total	**16,140**	**19,370**	

Appendix III

Summary of Heavy Oil and Oil Sands Activity in Alberta with Planned Capital Expenditures Under $20 Million as of January 31, 1985

Name	Type of Project/Recovery Method	Field Location
Suncor	Experimental/Steam Stimulation	Fort Kent
Canadian Occidental Petroleum Ltd.	Experimental/Steam Stimulation	Lindbergh Sector
Hudson's Bay Oil and Gas	Experimental/Steam Stimulation	Prairie Lake
Westmin Resources Ltd.	Experimental/Steam Stimulation	Lindbergh
Dome Petroleum Ltd.	Experimental/Steam Stimulation	Lindbergh
Dome Petroleum Ltd.	Experimental/Combination Thermal Drive	Lindbergh
PanCanadian Petroleum Ltd.	Experimental/Steam Stimulation	Lindbergh
Canadian Worldwide	Experimental/Steam Stimulation	Lindbergh
Petro-Canada	Experimental/Steam Stimulation	Primrose Lake Region
Alberta Energy Company (AEC)	Experimental/Steam Stimulation	Ipiatuk Lake
Dome Petroleum Ltd.	Experimental/Steam Stimulation	Moore Area
BP Exploration Canada Ltd.	Experimental/Wet Combustion (formerly steam stimulation)	Marguerite Lake
Bow Valley Industries Ltd.	Experimental/Steam and CO_2 Stimulation	Marie
Drummond Oil and Gas Ltd.	Experimental/Steam Stimulation	Ardmore
Chevron Resources Ltd.	Experimental/Steam Stimulation	Beaver Crossing
Gulf	Experimental/Combination Thermal Drive	Desmarais
Union Oil Company	Experimental/Steam Stimulation	Buffalo Creek
Canterra Energy	Experimental/Steam Stimulation	Kearl Lake
Texaco	Steam/Oxidation/Light Hydrocarbon Combustion	Fort McMurray
Amoco Petroleum Ltd.	Experimental	Gregoire Lake
Canadian Worldwide Energy Ltd.	Experimental/Steam Stimulation	Charlotte Lake
Koch	Experimental/Steam Stimulation	Fort Kent
Albion Petroleum Corp. Ltd.	Experimental/Steam Stimulation	Bonnyville
Amoco Petroleum Ltd.	Experimental/Steam Stimulation	St. Lina
Mobil Oil Co.	Experimental/Steam Stimulation	Wolf Lake Sector
BP Exploration Canada Ltd.	Experimental/Steam Stimulation	Marguerite Lake

Source: Summarized from "Oilweek: Canadian Petroleum", Energy Resources Conservation Board, Report No.: ST-84-44.

Appendix IV

Summary of Significant Energy-Related Projects in Northern Alberta

Name	Project Description	Location	Comment
Slave River Project	Proposed hydro-electric plant	Northeast Alberta	Proposal only. Some preliminary design engineering.
Esso Minerals	Open pit thermal coal	Judy Creek	Proposal stage only.
Sulpetro	Wapiti gas plant expansion	South of Grande Prairie	Project 25% complete. Cost $30 million.
Canadian Hunter	Elmsworth gas plant expansion	South of Grande Prairie	Project 50% complete. Cost $18 million.
Esso Resources	Enhanced oil recovery	North of Whitecourt (Judy Creek A)	Construction complete June/85. Cost $100 million.
Esso Resources	Enhanced oil recovery	North of Whitecourt (Judy Creek B)	Project on hold. Cost $40 million.
Esso Resources	Judy Creek extraction plant	North of Whitecourt	$25 million project. Completion scheduled late 1985.
Home Oil	Enhanced oil recovery	Swan Hills Field	Project 30% complete. Completion late 1985. Cost $90 million.
Dome Petroleum	Sour gas processing plant	Wembley	Completion early 1985. $55 million project cost.
Canterra/Mobil	Enhanced oil recovery	Rainbow Field	Project start July/84.
TransCanada/ Panarctic/Tenneco et al	Polar gas pipeline project	Mackenzie Delta to Edson, Alberta	Proposed 2 145 km. Natural gas pipeline.
AEC	Oil sands plant expansion	Primrose Lake Range	Proposed 85/86 project. Could expand to 25,000 bbl/d bitumen.
AEC/Esso	Heavy oil project	Primrose Lake Range	$30 million exploration program 1984-1987.
AMOCO	Experimental oil sands project	Elk Point	$50 million in situ project.
AOSTRA	New oil sands mine	West of Syncrude	$100 million mine proposal 1986-1990.
BP Canada et al	In situ oil sands project	Marguerite Lake	$55 million enhanced oil recovery.
BP Resources	Oil sands plant	Wolf Lake	$190 million project complete 1985.
Esso Resources	Oil sands production project	Cold Lake	$450 million steam stimulation. Complete 1985.
Petro-Canada	Oil sands mining	Northern Alberta	Proposed $3,500-5,000 million project.
Shell/AOSTRA	Oil sands in situ project	Peace River (Three Creeks)	$200 million expansion of pilot project.
Syncrude	Improve existing plant	Fort McMurray	$1.2 billion program to increase production. Complete 1987.
Suncor	Upgrade mine and plant	Fort McMurray	$355 million to extend plant life. Complete 1988.
Union Oil	Steam stimulation project	West of Fort McMurray	$53 million pilot project. Complete 1985.
AEC et al	Heavy oil project	Northeast of Lac La Biche	$40 million project to be completed mid-1985.
Dome Petroleum	Experimental heavy oil	Lindbergh field	$300 million. 25 year project.
Syncrude	Plant expansion	Fort McMurray	Proposed $3.5 billion expansion.
AOSTRA et al	Oil sands pilot project	Cold Lake (near Grand Centre)	To be complete April/86. Value $15 million.

Source: Summarized from "Major Projects List" provided by Alberta Economic Development.

Hospital Capital Construction Program Northern Region as at July, 1985

Hospital	Type of Construction	Bed Capacity From ACT	From AUX	From BAS	From NH	To ACT	To AUX	To BAS	To NH	Reason for Construction	Official Opening Date or Estimate
Bonnyville Health Care Centre	Phase 1 - Replacement	60	-	12	-	66	20	16	-		November/85
Cold Lake, John Neil Hospital	Phase 1 - Replacement	45	-	8	-	61	15	16	25		January/86
Fort Vermilion, St. Theresa General	Construction of staff residence & health clinic		n/a				n/a				August/85
Grande Prairie, Queen Elizabeth II Hospital	Renovations and expansion	130	50	27	50	247	110	-	100	Combination of new construction and renovated space	April/86 (total complex)
LaCrete Hospital	New facility									New Ambulatory Care Centre	June/87
McLennan Hospital, Auxiliary Hospital and Nursing Home	Replacement and renovations	61	-	6	50	51	20	6	50	Replacement of existing general hospital with a custom design facility; renovations and fire code upgrading of existing nursing home; new construction of auxiliary hospital and attachment to the existing nursing home	July/87
Slave Lake General	Addition	39	-	7	-	40	-	7	30	Addition of Nursing Home	August/88
McDougall Memorial St. Paul, St. Theresa General	Renovations and expansion	75	-	18	-	85	30	18	-	Construction of 30 new auxiliary beds, 10 psych beds, expansion of a diagnostic and treatment and ambulatory care area; renovations and upgrading of existing general facility	February/87
Valleyview Health Centre	Renovations and addition										September/88
Wabasca	New facility										September/87

Legend:

ACT - Acute hospital (active treatment)
AUX - Auxiliary hospital (long-term chronic care)
BAS - Bassinets
NH - Nursing home

Source: Telephone interview with Alberta Hospitals and Medical Care

Appendix VI

Proposed Road Construction and Upgrading Requirements in Northern Alberta*

Region 1: Lower Peace

- road development into new areas of agricultural land development
- upgrading to highway standard of Highway 58 to Rainbow Lake
- development of roads connecting La Crete directly to Highway 67
- a bridge at Tompkins Landing
- connection of Highway 58 to Fox Lake
- extension of Highway 58 to Fort Nelson
- extension of Highway 58 to Fort Smith
- upgrading of Secondary 697 from La Crete to Highway 35

Region 2: Upper Peace

- completion of Highway 686 east of Peace River
- paving of Highway 64 to the British Columbia border
- ferry at Fourth Creek east of Fairview
- develop a paved access from Highway 2 to the Notikewin Provincial Park
- development of roads to new farming areas in the Manning area

Region 3: Remote Area of Central Northern Alberta

- upgrading and paving of Highway 67 to Red Earth Creek
- upgrading of Highway 754 to all-weather status between Slave Lake and Wabasca
- upgrading and paving of Highway 750
- completion of Highway 686 from Cadotte Lake through Little Buffalo to Red Earth Creek
- development of a road from Slave Lake to Chipewyan Lakes
- development of a road from Wabasca to Calling Lake
- improvement of the internal roads within Chipewyan Lakes

Region 4: Grande Prairie Area

- road to Tumbler Ridge
- highway 40

Region 5: Slave Lake, High Prairie, Smoky River and Valleyview Areas

- Highway 67 and completion of Secondary Highway 686
- paving of Highways 747 and 750

Region 6: Grande Cache Area

- extension of Highway 40 linking Grande Cache and Grande Prairie
- upgrading of the Forestry Trunk Road 940 from Highway 40 north to Highway 34

Region 7: Fox Creek, Whitecourt and Swan Hills Area

- paving of Highway 32 and 33
- completion of secondary road 947 through to Edson

Region 8: Fort McMurray Area

- improve Highway 63 from Edmonton
- building a resource road to Wabasca
- constructing roads both north to Fort Chipewyan and east to the Saskatchewan Lakes at La Loche
- improved road connections to Lac La Biche
- a highway west to Peace River
- a road from Anzac through Linton to Fort McMurray

Region 9: Lac La Biche and Athabasca Area

- all-weather road to heavy oil field developments
- all-weather road to existing shallow gas fields, recreational lakes, commercial fishing lakes and an alternate route to Fort McMurray
- upgrading of roads existing in the region including 36 and 55 and improving the access from native settlements
- paving of Highway 55 from Lac La Biche to Cold Lake
- paving of road from Plamondon to Plamondon campsite
- paving of Plamondon "cut-off road" from Wandering River to Plamondon
- upgrading of Highway 813 north to Calling Lake and then extending through to Sandy Lake and Wabasca

Region 10: Cold Lake, Grand Centre and Bonnyville Area

- improved system of road access to heavy oil developments
- a road linking the Esso Oil site to the Dome site
- a fully upgraded road link to Lloydminster

Region 11: St. Paul and Elk Point Area

- upgrading of Secondary 897 from Marwayne north to Highway 28
- upgrading of local roads heavily utilized by the oil industry

* As suggested by regional workshop participants.